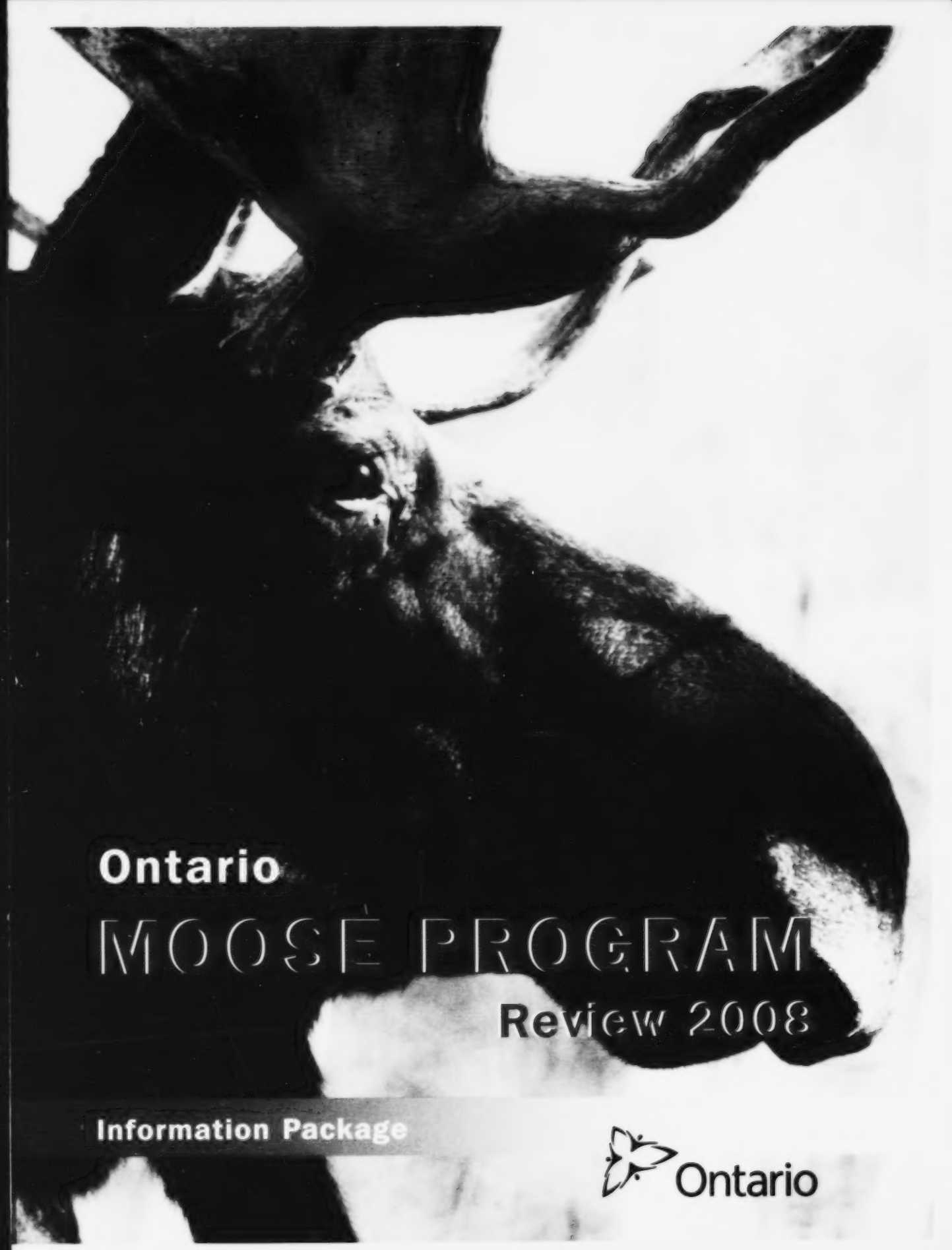


Ontario MOOSE PROGRAM Review 2008

Information Package

Ontario

Ontario

What's Happening?

Last summer, the Ministry of Natural Resources announced a broad review of Ontario's moose management program. The review will focus on four components of Ontario's moose management program with two phases of consultation.

Phase 1 – Spring 2008

This information package is available to anyone interested in participating in the review. It contains background information, three components related to moose management, and a fourth component that relates to the resident moose tag draw.

BACKGROUND	General information on moose in Ontario.
1. CERVID ECOLOGICAL FRAMEWORK	How caribou, moose, elk and deer will be managed in relation to each other.
2. MOOSE POPULATION OBJECTIVES	How to decide the number of moose there should be in each Wildlife Management Unit.
3. MOOSE POPULATION MANAGEMENT	Tools for managing the moose population. How should the calf harvest be managed?
4. RESIDENT TAG DRAW	How the present system works. How can the draw be improved?
QUESTIONNAIRE	Send us your ideas.

Phase 2 – Winter 2009

Broader consultation is planned for the winter of 2009 on enhancements to the resident tag draw, including discussion about the suggestions from Phase 1 of the review.

How to Participate

This information package is available at **Service Ontario** offices, the Ministry website: **ontario.ca/moosereview**, by telephone at 1-800-667-1940 weekdays from 8:30 a.m. to 5 p.m., or by mail from:

Ministry of Natural Resources
Fish and Wildlife Branch
Attention: Moose Review
Box 7000
300 Water Street
Peterborough, Ontario
K9J 8M5

If you are interested in moose, we encourage you to review this Information Package and send us your ideas. The deadline for comments on Phase 1 of the review is **June 30, 2008.**

Moose icon image courtesy of www.cpachter.com

Cette publication est également disponible en français.

Pourquoi cet examen?

L'été dernier, le ministère des Richesses naturelles a annoncé qu'il effectuerait un examen exhaustif du programme ontarien de gestion de l'orignal. L'examen portera sur quatre volets du programme ontarien de gestion de l'orignal et comprendra deux étapes de consultation.

Étape 1 – printemps 2008

La présente trousse d'information est mise à la disposition de quiconque désire prendre part à l'examen du programme. Elle contient un aperçu du contexte, une explication des trois volets de la gestion de l'orignal et d'un quatrième volet touchant le tirage de vignettes à l'orignal pour chasseurs résidents.

CONTEXTE	Renseignements généraux sur l'orignal en Ontario.
1. CADRE DE GESTION ÉCOLOGIQUE DES CERVIDÉS	Gestion du caribou, de l'orignal, du wapiti et du chevreuil axée sur leurs rapports entre eux.
2. OBJECTIFS : POPULATION D'ORIGNAUX	Déterminer le nombre d'orignaux qu'il devrait y avoir dans chacune unité de gestion de la faune.
3. GESTION DE LA POPULATION D'ORIGNAUX	Outils pour gérer la population d'orignaux. Comment gérer la récolte des veaux?
4. TIRAGE DE VIGNETTES : RÉSIDENTS	Fonctionnement du système actuel. Le tirage peut-il être amélioré?
QUESTIONNAIRE	Faites-nous part de vos idées.

Étape 2 – hiver 2009

Une consultation de plus grande envergure est prévue pour l'hiver 2009. Elle portera sur les améliorations au tirage au sort de vignettes pour chasseurs résidents, y compris une discussion des suggestions recueillies au cours de la première étape de consultation.

Comment participer

Vous pouvez vous procurer la présente trousse d'information auprès des bureaux de **ServiceOntario**, sur le site Web du ministère : ontario.ca/orignalexamen
par téléphone au 1-800-667-1940 les jours de semaine de 8 h 30 à 17 h, ou par la poste en écrivant à l'adresse suivante :

Ministère des Richesses naturelles
Direction du poisson et de la faune
Objet : Examen de la gestion de l'orignal
C.P. 7000
300, rue Water
Peterborough (Ontario)
K9J 8M5

Si vous vous intéressez à l'avenir de l'orignal en Ontario, nous vous encourageons d'étudier la présente trousse d'information et à nous communiquer vos idées. La date limite pour la réception des commentaires lors de cette première étape de consultation est le **30 juin 2008**.

BACKGROUND

Why Manage Moose?

When you think of Ontario's forests, you probably think of moose – they are icons of the north.

Moose are very important to northern ecosystems and are an integral part of Ontario's biodiversity. Their browsing influences the development of the forest, they are a significant food source for large predators and many scavengers, and they can affect the populations of other plant-eating animals.

Did You Know?

Ontario has about 109,000 moose.

That's just over 10% of the one million moose in North America.

There are just under one million moose in northern Europe and Asia.

Moose are important to people as well – whether it's to see one in the wild, for food or hides, or just to know they are there. Hunters from across Ontario and other parts of the world seek them every fall. Viewing and hunting moose generates hundreds of millions of dollars in economic activity within Ontario each year.

We need to ensure a healthy moose population for all these reasons – and to manage them responsibly.

Moose Range

About Moose

Moose breed in the fall – usually in late September. Gestation is about eight months and calves are usually born in mid-to-late May. In good habitat, a female moose (cow) will often have a single calf by its second birthday, and usually twins each year after.

Calves: At birth, moose usually weigh between 12 and 17 kilograms. They can walk and swim almost immediately. Calves grow rapidly during the summer and can gain 1.5 to 3 kilograms a day, reaching 160 to 180 kilograms (350 to 400 lbs.) by fall. In Ontario, the natural mortality of calves can be high from extreme spring weather and predators, and in some areas more than 75 per cent of calves can die in their first six months.

Yearlings: These are moose in their second year of life, but look almost full grown. At one and a half, bulls often have just spikes or small forks for antlers – but some can have small palmed antlers. More about this in Component 3 of the review – Moose Population Management.

Adults: Cows usually range from about 375 to 535 kilograms (825-1180 lbs.). Male moose (bulls) are larger, about 400 to 545 kilograms (880-1200 lbs.). Bulls are

usually about 1.7 to 2..3 metres high at the shoulder. Bulls shed their antlers in the winter and grow a larger set through the next spring and summer. Cows do not grow antlers. Antler size is important in determining the dominance of bulls during breeding each fall. Natural mortality rates are generally low in this phase of their life.

Seniors: As moose age, they often lose weight and bulls' antler size can decrease. Natural mortality increases at this stage - their teeth wear-down (making eating difficult), diseases like arthritis develop, and parasite loads increase. Moose can live 20 years or more, but there are few moose over 10 in most areas- the average age is much lower.

Factors That Affect Moose

There are several factors that affect moose populations. These factors influence the number of moose born (*population productivity*), the number that die (*mortality*) and to a lesser extent, the number of moose moving in and out of an area (*immigration and emigration*). The importance of these factors varies from place to place and through time, and some can be managed more readily than others.

CLIMATE

- Strongly influences where moose live.
- Specific events, like spring weather, can affect survival of calves and therefore the moose population.
- Will likely become more significant as climate change progresses.

HUNTING

- In most parts of the moose range, hunting is an important factor affecting moose populations.
- Harvest control is usually the major focus of moose management.

PREDATORS

- Wolves and bears can be important predators of moose.
- As with moose, these species are managed with a goal of maintaining sustainable populations.

COMPETITORS

- The presence of other plant eaters can affect moose populations.
- This is sometimes related to competition for food, but more often related to disease.
- Wildlife population levels can be managed to reduce competition.

DISEASE

- Moose occasionally decline from diseases like ticks and brainworm.
- There is some ability to control disease by keeping moose and deer numbers from getting too high.
- A potential threat is the spread of exotic diseases from livestock or escaped animals.

HABITAT

- Healthy moose populations require a good distribution of food and cover.
- Sufficient habitat can also reduce the exposure of moose to hunting, predation, weather, and disease.
- Crown forests in Ontario are managed using an ecosystem approach to provide a natural level of habitat for all species - including moose.

ACCIDENTS

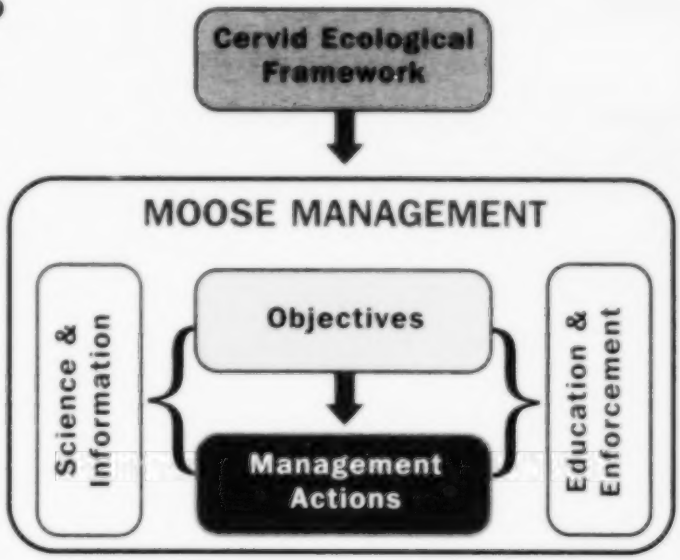
- Moose can succumb to drowning, falls, and road and rail accidents.
- These are usually not important at the population level, but they can be important locally.
- Some work is being done to test ways to reduce moose-vehicle collisions.

Moose Management in Ontario

The goal for moose management in Ontario is *"to provide for the sustainable management of moose populations and associated habitat and to provide for the continuous ecological, social and economic benefits for the people of Ontario."* (Ontario Moose Policy, 1980).

To achieve this goal both populations and habitat are managed. An ecological approach is used which considers all factors affecting moose.

This flow chart outlines the main aspects of moose management. Cervid is a term used to describe members of the deer family and the Cervid Ecological Framework will be the overall guide to the management of caribou, moose, elk, and deer. Moose management is centred on appropriate objectives and management actions to achieve those objectives. This is supported by science and information as well as education and enforcement.



Cervid Framework

The Cervid Ecological Framework will guide decisions on the management of moose at the broad landscape and ecological level.

The framework considers the ecological factors affecting caribou, moose, elk, and deer. Its purpose is to assist management decisions, especially in areas where these species overlap. The framework is the topic of **Component 1** of the review.

Objectives

Moose management begins by setting objectives for the number of moose and the amount of moose habitat in an area.

The moose population objective is set at a level to attain ecological sustainability and provide a mix of benefits from moose. And it considers ecological factors such as climate, habitat, other cervids, predators, and disease. Historical densities of moose and socio-economic benefits (like harvest and viewing) are also incorporated. Setting population objectives is the topic of **Component 2** of the review.

Moose habitat objectives are based on projections of the amount of moose habitat that would be expected in the forest under natural conditions. In Ontario, moose habitat management on Crown land is done through the Forest Management Planning process.

Management Actions

Once the management objectives are set, actions are taken to achieve them.

Actions can be taken on many of the factors affecting moose populations. In Ontario, the main focus of population management is the control of the harvest. Harvest management is covered in more detail on the next page. Other species that interact with moose are managed with programs comparable to the moose program. There is also some management directed at accident reduction and disease monitoring. Population management actions are the topic of **Component 3** of the review.

Moose habitat management complements moose population management. As with habitat objectives, habitat management actions on Crown Land are conducted through the Forest Management Planning process.

Education & Enforcement

The success of any management system depends on its understanding and acceptance by the public - and especially hunters.

In Ontario, the majority of hunters are avid conservationists who are interested in maintaining a strong moose population. Ontario's Hunter Education Program and the enforcement of hunting regulations help protect this valuable resource.

The moose population depends on hunters being good stewards of the resource and understanding its limits. The system simply wouldn't work otherwise.

Ontario

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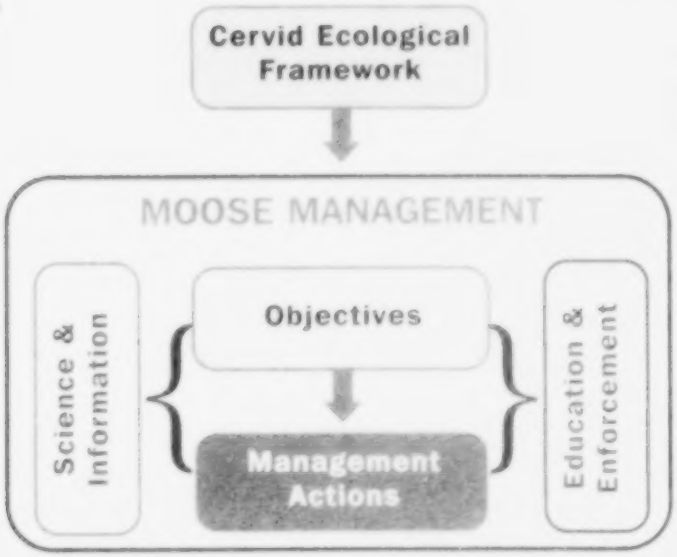

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Science & Information

The most up-to-date information on moose populations, harvest, and moose science is incorporated in Ontario's moose management program.

Moose population information is collected in winter aerial surveys. Harvest data is collected in annual hunter surveys. Ontario also has an active research program involving moose ecology.

Information from hunters, the public and Aboriginal people is also incorporated into the program.

Moose Harvest Management

The demand for moose harvest greatly exceeds supply in most areas. Therefore, harvest management is important in maintaining moose populations.

Harvest management consists of three main steps:

1. Harvest Level

The allowable harvest level is the number of moose that can be safely harvested. This level maintains the natural ecological system, achieves the moose population objective, and provides a good mix of benefits from moose.

Allowable harvests of moose is generally low relative to their abundance - usually in the range of 5 to 15% of the population.

2. Harvest Control

In Ontario, a selective harvest system controls the harvest by limiting the number of bulls and cows that can be harvested in each Wildlife Management Unit. In most Units, all hunters may harvest a calf.

Adult Harvest - The selective harvest system carefully manages the harvest of adult moose – this is the breeding portion of the population. This approach has worked well – increasing the population from about 80,000 at the start of the selective harvest program in 1983 to about 109,000 now.

Calf Harvest – Calf harvest is managed in only five Units. The number of calves in some Units is low and there is a need to ensure that enough calves survive to become adults and keep the population strong. Calf harvest is relatively high in some Units. In these areas, the adult harvest has been reduced to keep the overall harvest at the allowable level. This results in fewer adult tags for hunters. How to manage the calf harvest is the topic of **Component 3** of the review.

3. Harvest Distribution

Limited numbers of bull and cow tags are distributed to hunters to keep the harvest at the allowable level.

Resident Draw - About 88% of the allowable harvest is distributed through resident draws for the bull and cow tags. A draw is needed because the number of hunters greatly exceeds the number of moose that can be harvested sustainably. The draw's objectives are to distribute the tags fairly and encourage hunters to hunt in a group and share a moose - this works well in many Units. There are also many Units where the number of applicants for tags is very high and it is difficult to get a tag. How to distribute the limited tags is the topic of **Component 4** of the review.

Tourist Industry - The other 12% of the allowable harvest is allocated for use by the tourist industry. Non-residents must hunt through a tourist operator. Ontario residents can also use the services of an outfitter.

Moose Facts

Moose Population - *generally stable overall*

Overall the moose population in Ontario is strong. Numbers have increased since the start of the selective harvest system in 1983 and have been generally stable in the last few years at about **109,000** (as measured in mid-winter). About 94,000 moose are in huntable areas outside of parks and game preserves.

Because of the dynamics of natural systems, moose populations are often changing at the local level - going up in some Wildlife Management Units and down in others. The map following this section shows the most recent densities of moose in Ontario.

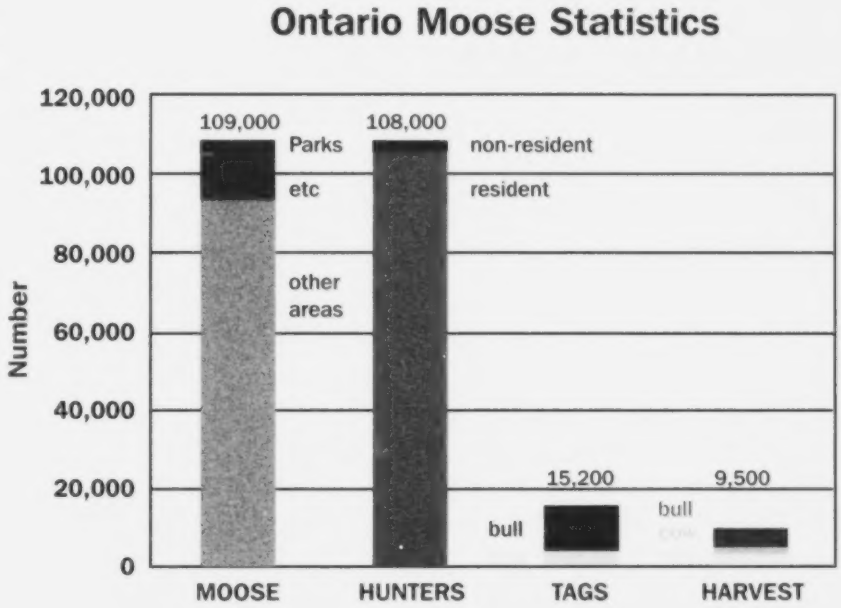
Hunting Pressure - *increased over time, roughly stable now*

Moose license sales have fluctuated from about 100,000 to 116,000 over the last five years – averaging about **108,000**. The numbers have increased over time from about 60,000 in 1970, to 84,000 in 1980, peaked at about 130,000 in 1994, and then declined gradually.

Hunting pressure also varies across the province. Recent hunter effort is shown on the second map following this section.

Supply and Demand – *about the same number of moose as hunters*

Currently, there is about the same number of moose as moose hunters in Ontario – just under 110,000 each. Hunters actually outnumber the number of moose available for hunting (those living outside of parks and game preserves - areas where hunting is allowed).



So clearly, there are not enough moose for every hunter to harvest one.

Allowable Harvest - *about 5 to 15% of the mid-winter moose population*

The current licensed harvest is about 9,500 moose per year or about 10% of the mid-winter population of about 94,000 moose in areas where hunting is allowed. Overall, this appears to be close to the rate needed to sustain the current population.

The allowable harvest varies significantly from one Unit to another, as well as within each unit over time. Rates can be as low as 5 and as high as 15% or more.

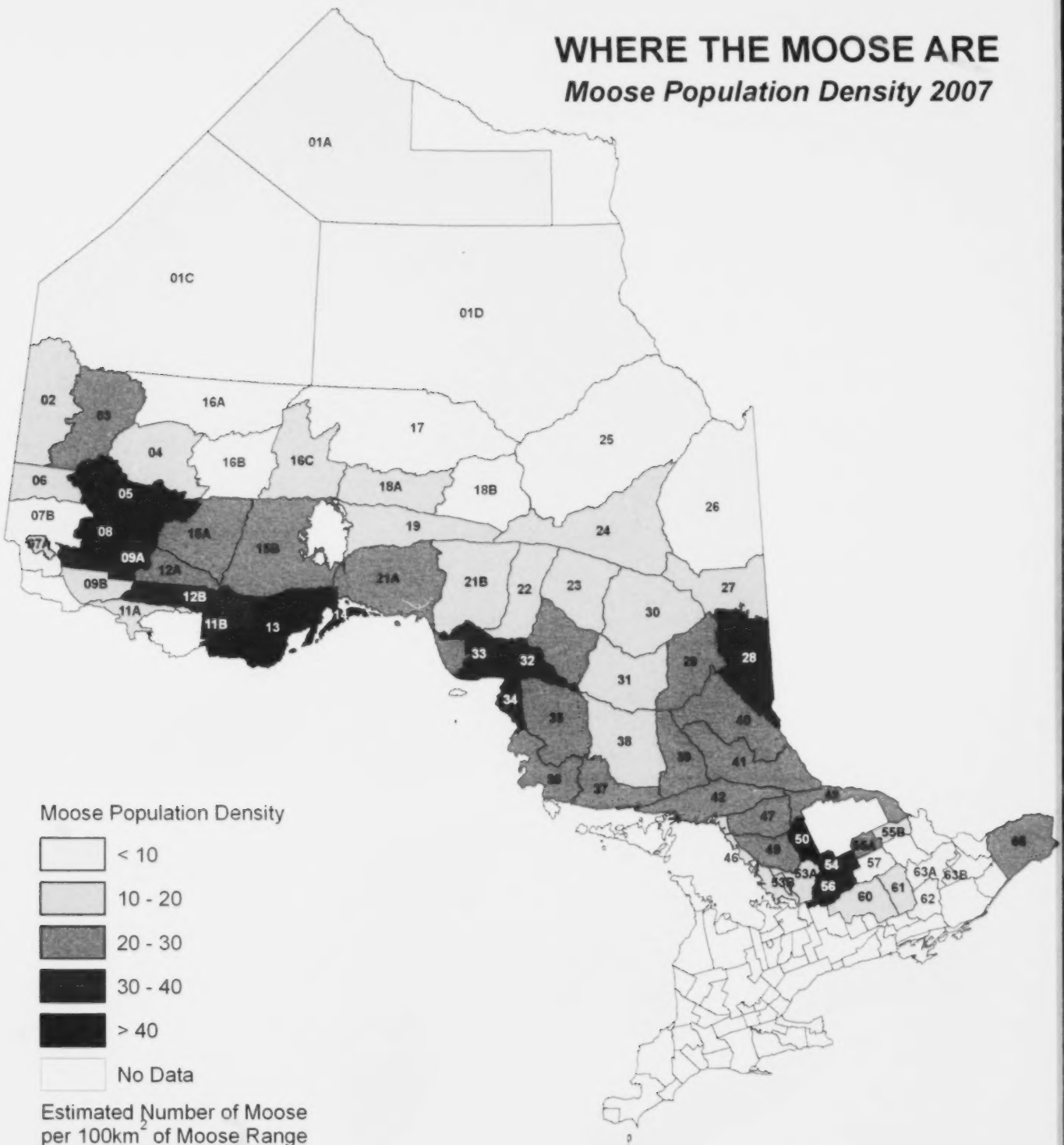
Harvest rates tend to be lower if the number of calves is low, other mortality is high, or if the objective is to increase the moose population.

Distribution of Harvest - *one moose harvested for every 11 hunters*

The 9,500 harvested moose distributed among 108,000 licensed hunters is about one moose harvested for every 11 hunters – on average. Put another way, each hunter will harvest a moose every 11 years on average. Or, a group of four hunters would harvest a moose every three years on average. These numbers vary widely by unit.

WHERE THE MOOSE ARE

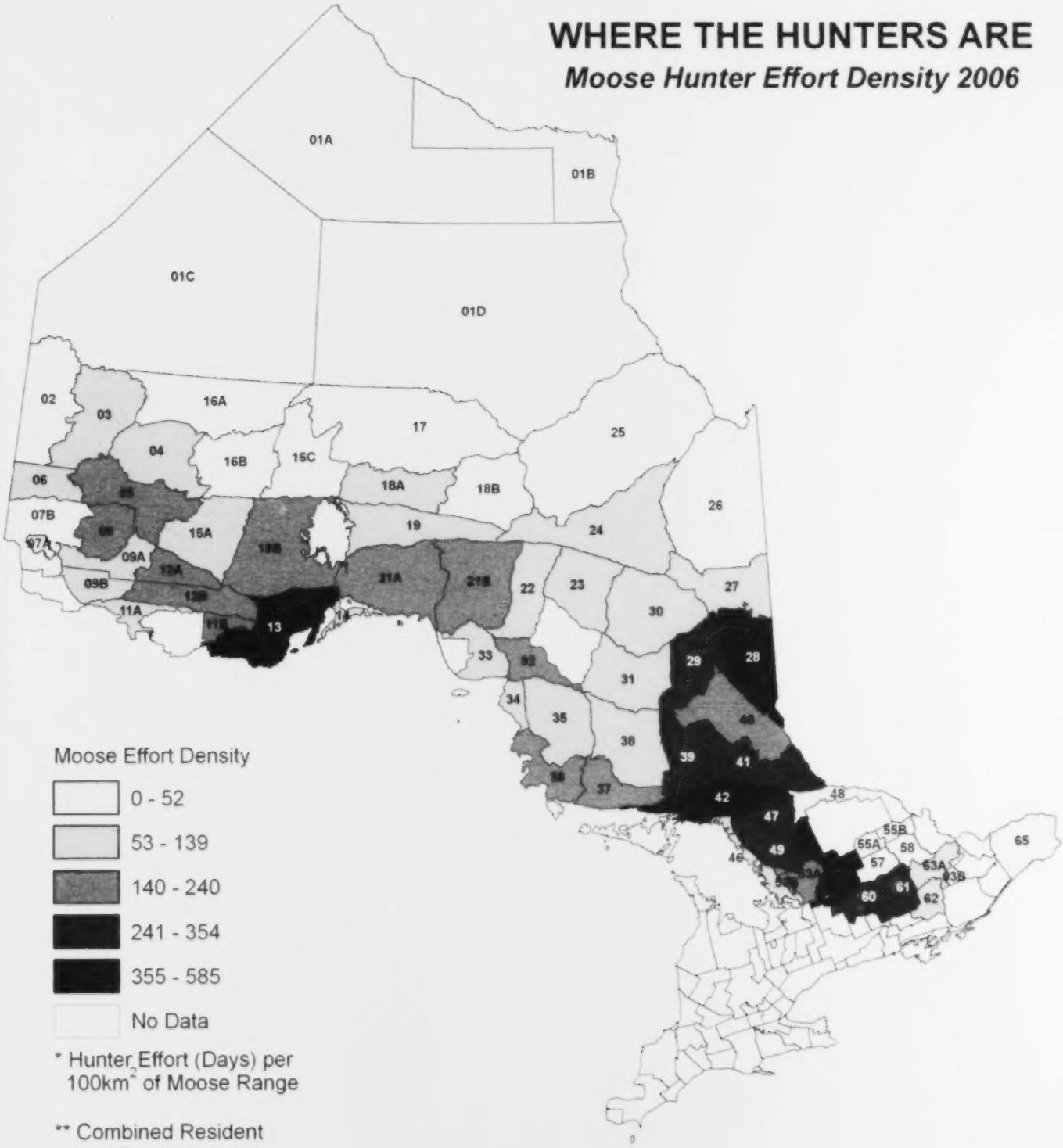
Moose Population Density 2007



Ontario

WHERE THE HUNTERS ARE

Moose Hunter Effort Density 2006



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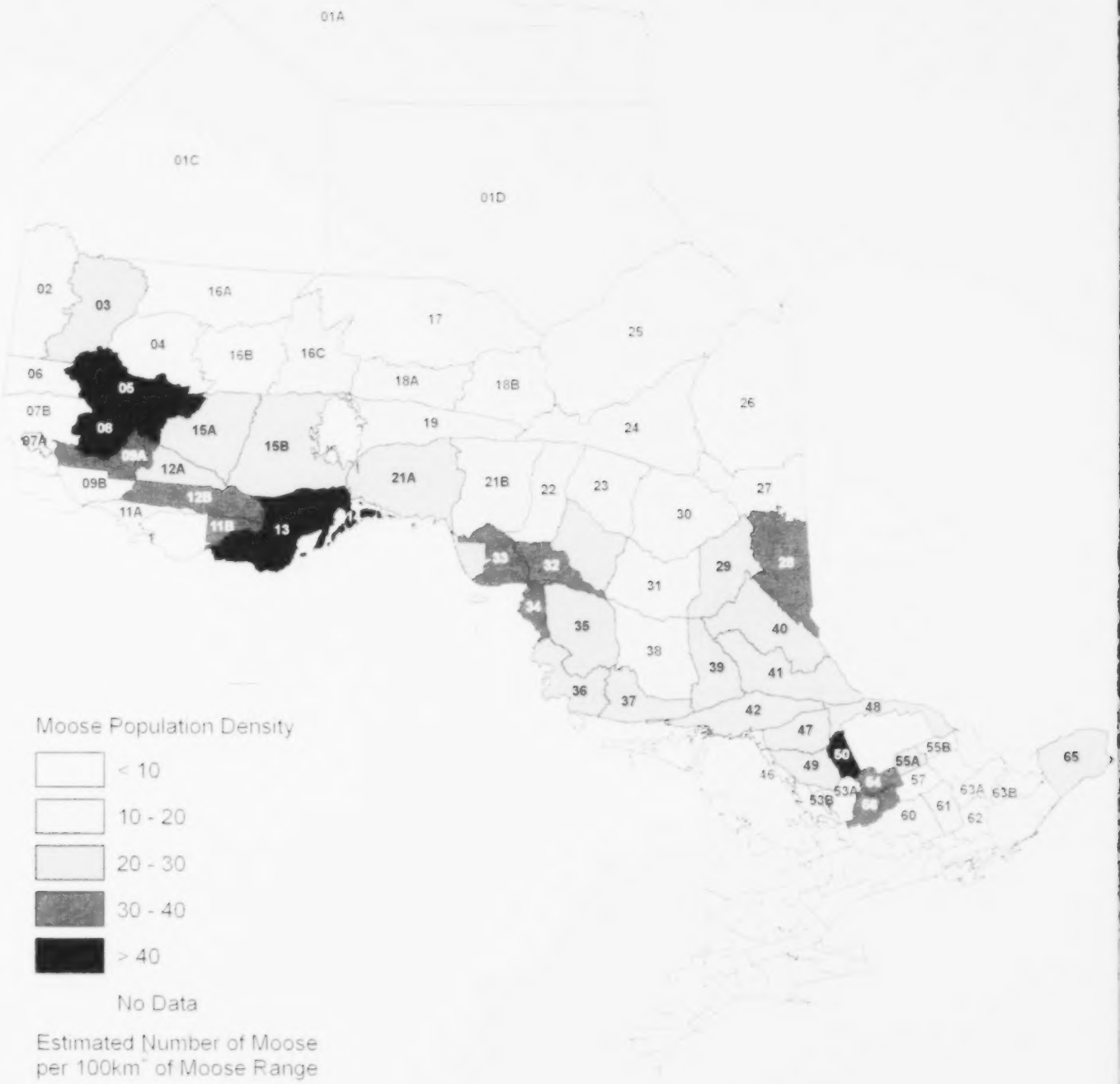


Moose Population Density

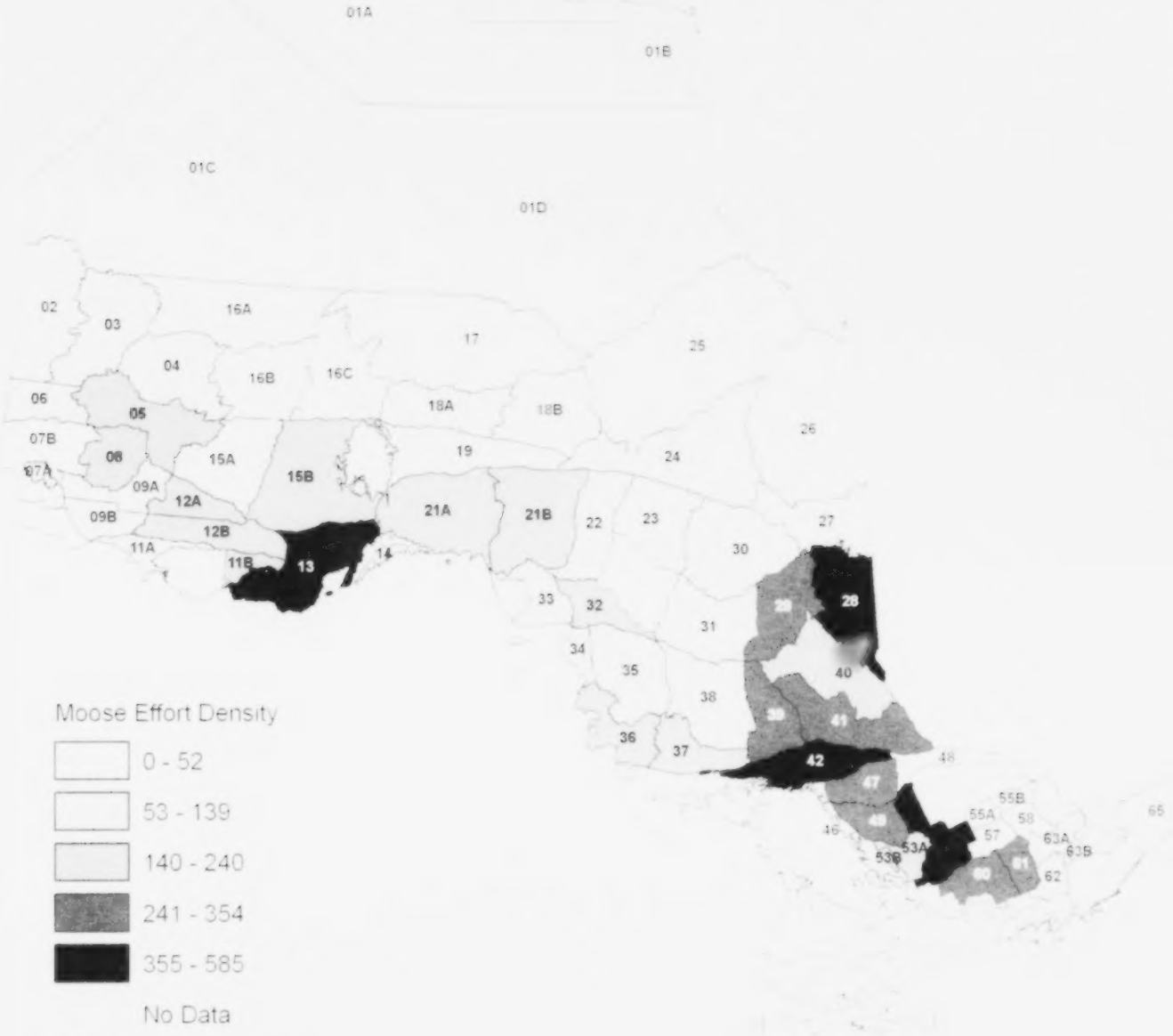
- < 10
- 10 - 20
- 20 - 30
- 30 - 40
- > 40
- No Data

Estimated Number of Moose per 100km² of Moose Range

Ontario

WHERE THE HUNTERS ARE

Moose Hunter Effort Density 2006

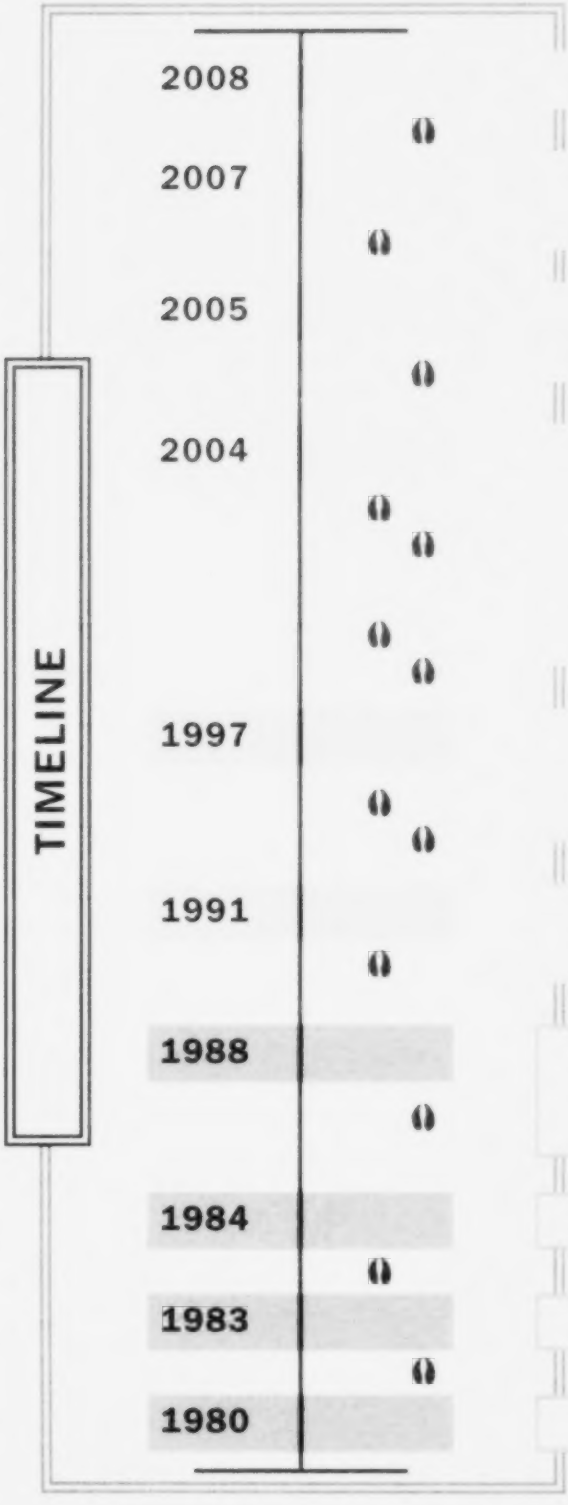


* Hunter Effort (Days) per 100km² of Moose Range

** Combined Resident and Tourist Industry

Recent History

MOOSE PROGRAM REVIEWS AND OUTCOMES



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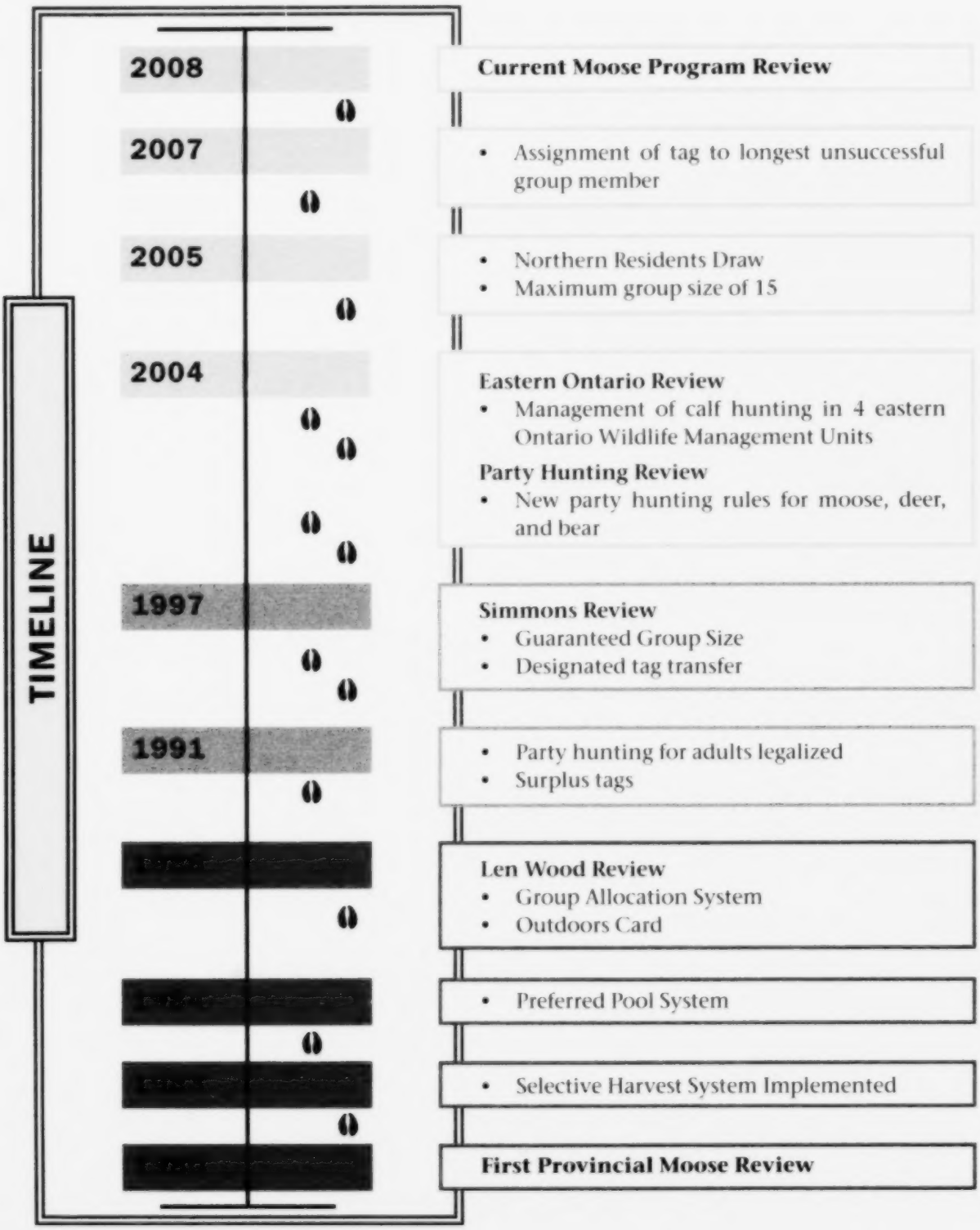


1. CERVID ECOLOGICAL FRAMEWORK

What is the Cervid Ecological Framework?

Cervid is a term used to describe members of the deer family. Ontario has four cervid species: moose, white-tailed deer, woodland caribou and elk. The Cervid Ecological Framework will help manage these species as they relate to each other at a broad landscape and ecological level. The framework will consider the interactions among cervid populations such as competition for habitat, disease transmission, and predators and will assist in making management decisions in areas where they overlap.

Cervid Ecological Framework

How moose, deer, caribou and elk will be managed in relation to each other in Ontario

Moose

Woodland Caribou

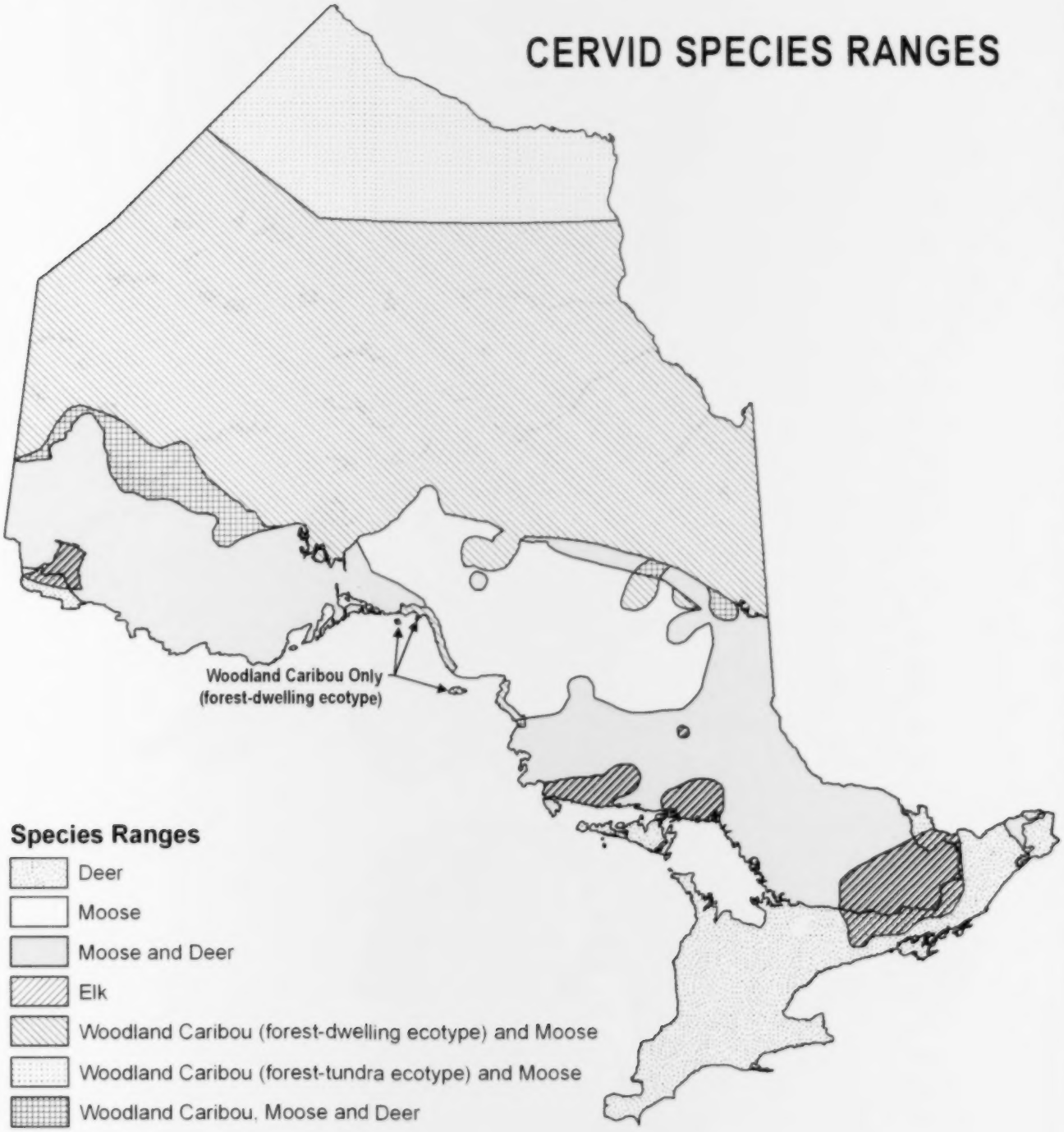
Elk

White-tailed Deer

Why is it Important?

The Cervid Ecological Framework will help establish an overall policy to guide where and how moose, deer, caribou and elk populations are managed in relation to each other. It will include both population and habitat management direction for all the species and be used to inform habitat objectives in Forest Management Plans in northern and central Ontario.

The framework will address interactions/conflicts between species and promote consistency in establishing both population and habitat management objectives on a broad landscape scale. For example, a management decision to increase deer populations in a particular area may decrease moose populations in that same area.

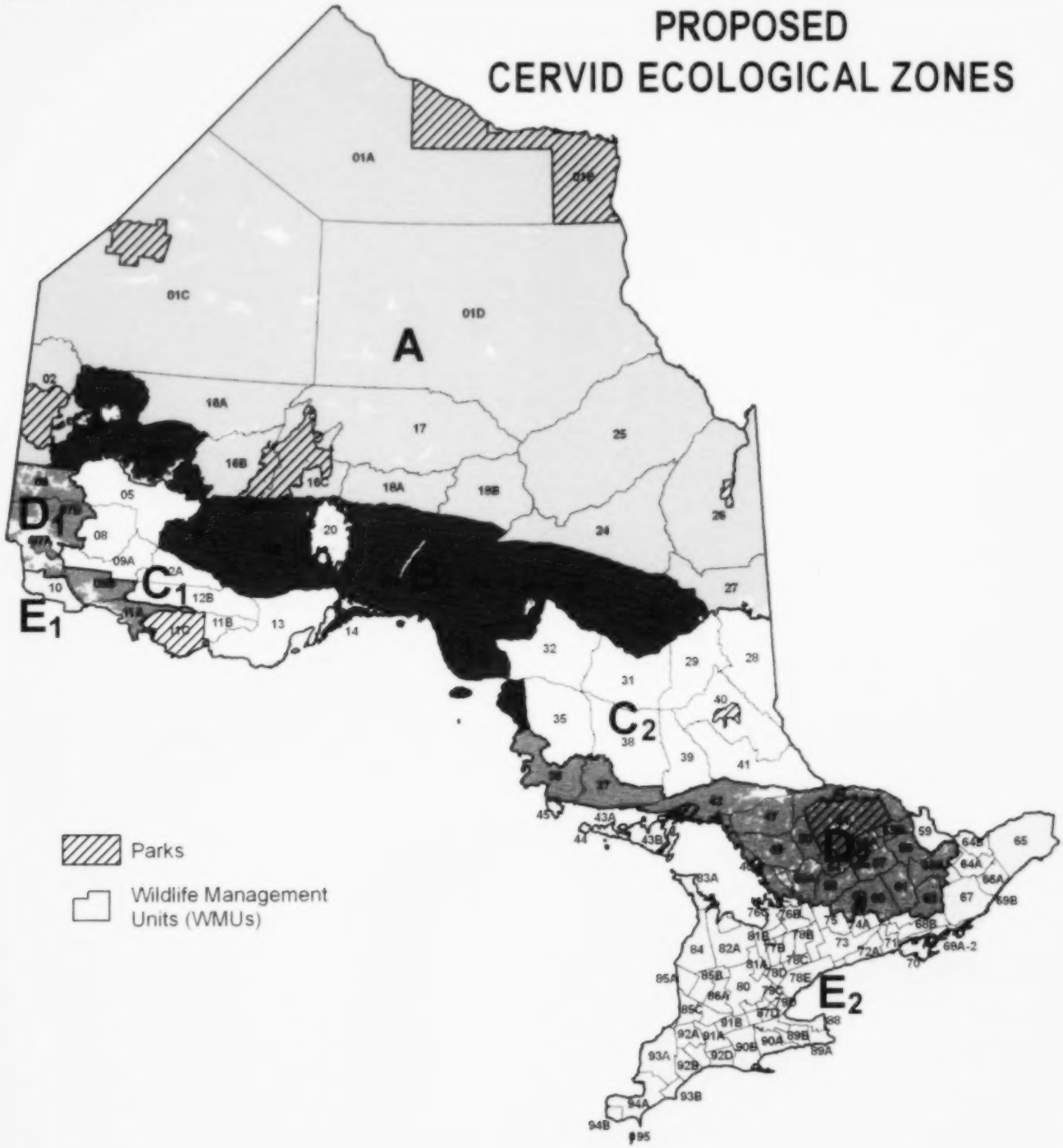


Ontario has many areas where cervid ranges overlap. About 90% of the province has more than one cervid species. Cervid ranges have changed over time as a result of natural changes (e.g., weather patterns, wildfire) and land use changes (e.g., industrial and residential development, road/rail construction, agriculture, forestry operations, etc). Changes to population and habitat management, as well as hunting patterns and effort have also resulted in changes to cervid densities and distribution.

Ontario

Cervid Ecological Zones

The following Cervid Ecological Zones are proposed to help set general population and habitat management objectives. They are based on cervid species range and overall management intent. Some zones are further subdivided based on variations in habitat and climate. Broad management direction will be applied across each zone to assist in setting local population objectives at the Wildlife Management Unit level.



PROPOSED
CERVID ECOLOGICAL ZONES
A
B
C1
C2
D1
D2
E1
E2

Cervid Ecological Zone Management

The ministry is seeking public input on the proposed broad management approach for each Cervid Ecological Zone. More detailed information on management considerations and management approaches is available by contacting the Ministry's Fish and Wildlife Branch

* **Note:** *Woodland Caribou: MNR will be developing provincial policy for the conservation and recovery of caribou and their habitat through another planning process. New direction for woodland caribou will be incorporated into the Cervid Ecological Framework when available.*

Cervid Ecological Zone	Proposed Broad Management	
	POPULATION	**HABITAT**
A	**Woodland Caribou*** - maintain population through habitat management at the landscape scale. **Moose** - maintain natural, low density population and provide optimal hunting opportunities through liberal harvest allocation. **White-tailed Deer** - maintain natural, low density population and provide optimal hunting opportunities through liberal seasons and harvest allocation.	Addressed through Forest Management Planning and other land-use planning processes: • caribou habitat management should be a primary consideration, • moose habitat management should be a secondary consideration, • deer habitat management may not be considered.
B	**Woodland Caribou*** - maintain population through habitat management at the landscape scale. **Moose** - maintain low to moderate density population and provide optimal hunting opportunities through liberal harvest allocation. **White-tailed Deer** - maintain low density population and provide optimal hunting opportunities through liberal seasons and harvest allocation. Reduce local human-deer conflicts and deer-moose interactions.	Addressed through Forest Management Planning and other land-use planning processes: • caribou habitat management should be considered (where appropriate), • deer habitat management may not be considered.
C_1	**Moose** - maintain moderate to high density population and provide optimal hunting and viewing opportunities. **White-tailed deer** - maintain low density population and provide optimal hunting opportunities through liberal seasons and harvest allocation. Reduce local human-deer conflicts and deer-moose interactions. **Elk** - monitor situation and reported sightings.	Addressed through Forest Management Planning and other land-use planning processes: • moose habitat management should be a primary consideration, • deer habitat management may not be considered, • elk habitat management may not be specifically considered.
C_2	**Moose** - maintain moderate to high density population and provide optimal hunting and viewing opportunities. **White-tailed Deer** - maintain low density population and provide optimal hunting opportunities through appropriate seasons and harvest allocation. Optimal hunting and viewing opportunities in the southern portions of the zone should be maintained within socially accepted ranges. Reduce local human-deer conflicts and deer-moose interactions **Elk** - monitor situation and reported sightings.	Addressed through Forest Management Planning and other land-use planning processes: • moose habitat management should be a primary consideration, • deer habitat management may not be considered except in the most southern portions of the Zone, • elk habitat management may not be specifically considered.

Note: *This document contains more information about the process for setting Moose Population Objectives (Component 2) within Wildlife Management Units. Moose Population Objectives will be used to inform/define moose densities for each Cervid Ecological Zone (described above).*

Ontario

Cervid Ecological Zone	Proposed Broad Management	
	POPULATION	**HABITAT**
D_1	**Moose** - maintain moderate density population and provide optimal hunting and viewing opportunities. **White-tailed Deer** - maintain moderate density population and provide optimal hunting and viewing opportunities through liberal seasons and harvest allocation. Reduce localized human-deer conflicts. **Elk** - monitor situation and reported sightings.	Addressed through Forest Management Planning and other land-use planning processes: • moose habitat management should be considered in most areas, • deer habitat management should be considered in the most western portion of the Zone, • elk habitat management may not be specifically considered (addressed indirectly).
D_2	**Moose**- maintain moderate to high density population and provide optimal hunting and viewing opportunities. **White-tailed Deer** - maintain moderate density population within winter habitat carrying capacity and provide optimal hunting and viewing opportunities through appropriate seasons and harvest allocation. Prevent and manage human-deer conflicts where necessary. **Elk** - monitor situation and reported sightings. Manage human-elk conflicts where necessary.	Addressed through Forest Management Planning and other land-use planning processes: • moose habitat management should be considered, • deer habitat management (localized summer and winter habitat) should be considered, • elk habitat management may not be specifically considered (addressed indirectly).
E_1	**White-tailed deer** - maintain high density population and provide optimal hunting and viewing opportunities. Prevent and manage human-deer conflicts where necessary. **Elk** - monitor situation and reported sightings. Manage human-elk conflicts where necessary. **Moose**- monitor population.	Addressed through Forest Management Planning and other land-use planning processes: • deer habitat management should be considered, • elk habitat management may not be specifically considered (addressed indirectly), • moose habitat management may not be considered.
E_2	**White-tailed Deer** - maintain moderate to high density population within socially acceptable limits and winter habitat carrying capacity. Provide optimal hunting and viewing opportunities through appropriate seasons and harvest allocation. In some areas, effects of high deer densities on biodiversity and species at risk may need to be considered. Prevent and manage human-deer conflicts where necessary. **Elk** - monitor situation and reported sightings. Manage human-elk conflicts where necessary. **Moose**- maintain natural, low density population in WMU 65 and provide optimal hunting and viewing opportunities. Monitor populations in northern portion of the Zone.	Addressed through Forest Management Planning and other land-use planning processes: • deer habitat management should be considered and influenced by private land forestry and stewardship practices (where appropriate), • elk habitat management may not be specifically considered (addressed indirectly), • moose habitat management may not be considered, except in the most eastern portion of the Zone (i.e., WMU 65).

Forest Management Planning: is the process for managing Ontario's Crown forests. It determines the amount, location, and pattern of timber harvest and the regeneration of harvested areas. The plans must manage for the long-term sustainability of the forest, including the provision of habitat for all forest wildlife.

Land-use Planning - Refers to all the other planning processes that govern land use in Ontario. This would include the planning for mines, hydro developments, roads, parks and protected areas, and municipal planning.

Let us know what you think about the Cervid Ecological Framework. There is a section for this on the questionnaire.

2. POPULATION OBJECTIVES

COMPONENT 1:
Cervid Ecological Framework

↓

COMPONENT 2:
Moose Population Objectives

↓

COMPONENT 3:
Moose Population Management

How Population Objectives Fit In

A moose population objective is the desired number of moose for a Wildlife Management Unit. The objective needs to maintain the natural ecological system in the area and provide for desired benefits to people like viewing and hunting. Moose management plans are then developed to achieve the objective.

The Cervid Ecological Framework (Component 1) will provide broad direction for setting population objectives. Ecological factors affecting moose will be considered in setting the population objective, as well as social and economic factors affecting the benefits to people.

History of Moose Population Objectives in Ontario

The original moose population objectives were set in the early 1980s to increase the population. The objectives and related management actions worked well and the population rose from about 80,000 to about 109,000 now.

These original objectives were based on a general estimate of the number of moose that could be supported in good habitat - about 40 moose per 100 km^2. This level was applied to each Unit in core moose range.

More recently, other factors are being considered in setting relevant objectives. These include better estimates of habitat quality, relationships with other species (like caribou, deer, and predators), and the specific benefits people get from moose, such as hunting and viewing.

Some of these factors were incorporated in revised population objectives in 2000. To keep the moose program current, the Ministry is reviewing the process for setting population objectives and seeking your input. This is in preparation for establishing new moose population objectives for all Units.

Let us know what you think about the following approach to setting moose objectives. There is a section for this on the questionnaire.

Ontario

Setting Population Objectives – The Approach

1. Ecological

The main objective for moose is to maintain an ecologically sustainable (or strong) population.

This means that moose numbers should be in a range where they can perform their normal role in the ecosystem - as browsers and prey.

Considerations

Habitat & Climate	• Determine the moose population level that the habitat and climate can support. • This estimates the maximum number of moose that could occur in a Wildlife Management Unit.
Other Cervids	• Determine the moose population level that is appropriate for the levels of caribou, deer, and elk in the area. • The Cervid Ecological Framework (Component 1) will provide support for these considerations.
Moose	• Moose can damage their habitat and are more susceptible to disease at high densities. • It may be appropriate to keep moose at moderate levels, even if the habitat could support more.
Predators	• Moose populations are often affected by predators at levels below what the moose habitat can support. • Low numbers of moose also affect the populations of some predators.
Combined	• The combination of these factors gives upper and lower ecological bounds for the moose population.

2. Socio-Economic

The moose population also provides a mix of benefits to people.

These socio-economic objectives fall within the ecologically sustainable range (see #1 above).

Because of the difficulty in quantifying these factors, the most appropriate population level will often be determined relative to the present population.

Considerations

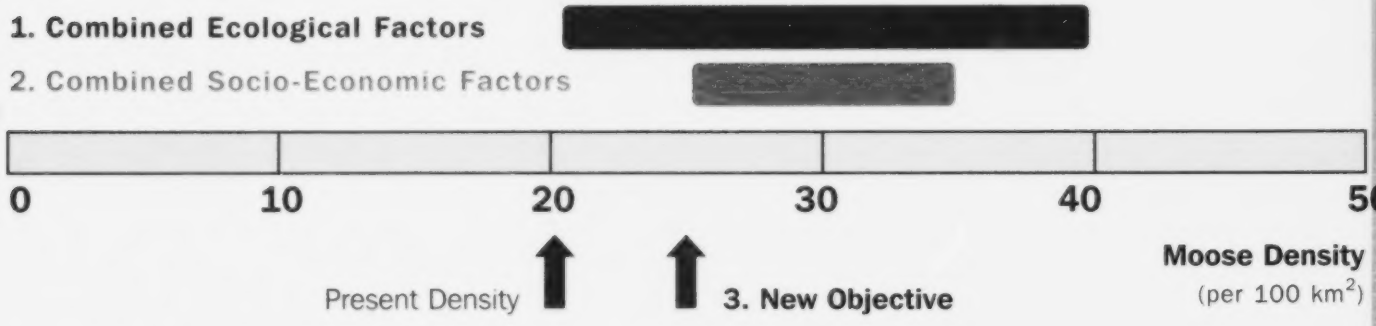
Hunting	• Harvesting - subsistence, resident, non-resident. • Tag numbers. • Associated recreational and cultural aspects.
Viewing	• Viewing and intrinsic values. • Associated recreational and cultural aspects. • Viewing of associated species.
Economic	• Value of hunting and viewing to tourism related businesses and local communities. • Value as a food source.
Combined	• Analysis of these factors gives a moose population level that provides the best mix of socio-economic benefits.

3. Final Objective

The population objective for a Wildlife Management Unit is the number of moose that provides the best mix of socio-economic benefits within the ecologically sustainable limits.

Setting Population Objectives – An Example

In this example, the unit is in core moose range, habitat is good, there are few deer, no other cervids, and predator levels are normal. The area has a high demand for hunting and moderate demand for viewing and moose-related economic activities.



Step 1 Combined Ecological Factors (green bar)

Range - Moose densities should be in the range of 20 to 40 moose per 100 km^2 to satisfy all the ecological considerations in this unit. This is where the system is ecologically sustainable.

Upper Limit - The habitat in the unit could actually support more than 40 moose per 100 km^2, but the density should be kept below this to minimize habitat damage and disease. Predators may also limit the population at this density, but interactions with other cervids are not limiting.

Lower Limit – Moose can persist at densities well below 20 moose per 100 km^2, but for moose to fulfill their ecological role as browsers and prey, their density should be above this level.

Step 2 Combined Social and Economic Factors (grey bar)

Range - In this unit, the desired social and economic benefits could be met with moose densities in the range of 25 to 35 moose per 100 km^2. This is within the ecologically sustainable range.

Upper Limit – Allowable harvest and tags may start to decline at densities around 35 moose per 100 km^2 because of increased predation at higher moose densities. So this is set as the upper limit because of the importance of hunting – even though viewing and economic benefits would continue to increase at densities above this level.

Lower Limit - In this case, hunting, viewing, and economic activities would all benefit from more moose. Twenty-five moose per 100 km^2 is simply a moderate increase above the present density of 20.

Step 3 New Objective (green arrow)

The new objective was set at 25 moose per 100 km^2, which is a moderate increase of 25% above the present population of 20 moose per 100 km^2.

This new objective falls within the ecologically sustainable range. In this case, the new population objective is set at the low end of the social and economic range. This would allow the population to increase with a minimum reduction in harvest and tags.

MOOSE PROGRAM REVIEW

Ontario

QUESTIONNAIRE

Number For Office Use

How You Can Participate

- We are interested in your ideas on any aspect of moose management.
- If you are a hunter, we are particularly interested in your ideas on how to manage the harvest to ensure strong moose populations into the future. We also want your ideas on how to best distribute tags. These are Components 3 and 4 of the review.
- To fill out this questionnaire electronically, you require Adobe Reader 7.0 or higher. Save the questionnaire to your computer, fill it out, save it, and send as an email attachment to moose.review@ontario.ca

  If you prefer, you can print out the questionnaire and return to any Service Ontario office or mail it with your comments to:

  Moose Program Review, Fish & Wildlife Branch
  Ministry of Natural Resources
  300 Water Street, Peterborough, ON, K9J 8M5

- You can also follow the progress of the Moose Program Review on the Ministry website at: ontario.ca/moosereview
- Deadline for comments on this phase of the review is **June 30, 2008**.

How Information from this Questionnaire will be Used

- Information collected on Components 1, 2, and 3 will be used to update the moose policy and program. Proposed changes will be posted on the Environmental Bill of Rights Registry in late 2008.
- Information collected on Component 4 will be used to help inform further discussions on improvements to the Resident Tag Draw in Phase 2 of the Moose Program Review consultation next winter.

Survey Information

- To help summarize the responses, we would appreciate your answers to the following questions:

1. In what part of the Province do you hunt or view moose?

☐ Northwest ☐ Northeast ☐ South

2. In what part of the Province do you live?

☐ Northwest ☐ Northeast ☐ South

1. CERVID ECOLOGICAL FRAMEWORK

Any comments on the management approaches or Cervid Ecological Zones proposed for managing caribou, moose, elk, and deer in relation to each other?

2. MOOSE POPULATION OBJECTIVES

Any comments on how the number of moose there should be in a particular Wildlife Management Unit is determined?

Ontario

3. MOOSE POPULATION MANAGEMENT

One of the main purposes of the review is to get hunter input on how to reduce the calf harvest where this would be beneficial. Allowing more calves to reach maturity will build the moose population in these areas. This will result in a larger harvest of adult moose and more tags.

Several options have been identified that would reduce calf harvest where needed, and allow more adult tags to be issued. After reading Component 3, please tell us which options you prefer below.

If you have other ideas on how to maintain the moose population and increase the number of adult tags, please provide them at the end.

1. In specific areas where calf harvest control would be beneficial, would you prefer one of the following:

A. a short season for calves ☐

OR

B. a draw for calves ☐

2. Should there be further consideration of the spike/fork bull harvest system, as an alternative to harvesting calves?

YES ☐ NO ☐

3. Are you in favour of a shorter gun season for adults in the area where you hunt, to allow more adult tags to be issued?

YES ☐ NO ☐

4. Other ideas or comments

4. RESIDENT TAG DRAW

One of the main focuses of the review is to get hunter input on the resident moose tag draw. Let us know how you think hunter satisfaction with the tag draw system can be improved. In particular, are there ways for hunters to better share the limited number of adult tags available? Are there ways to reduce the number of hunters who have been unsuccessful in the draw for a long time? Are there ways to allow more adult tags to be issued? What do you like about the present tag draw system, what do you dislike, and what changes would you suggest?

LIKES:

DISLIKES:

CHANGES:

Other Ideas on Moose Management

Email instructions: Save this document on your computer, fill it out, save and send as an email attachment to moose.review@ontario.ca

We appreciate your help - thanks for participating!

3. POPULATION MANAGEMENT

Focus of this Component

Many factors affect moose populations – climate, habitat, hunting, predators, competition, disease, and accidents.

This section covers the immediate concern of managing the calf harvest in some Wildlife Management Units. Some related hunting season adjustments are also included. The idea is to increase the number of adult moose where needed. This will help increase adult harvest and number of tags.

Sections

- **Managing the Calf Harvest**
- **Potential Calf Harvest Systems**
- **Moose Seasons**
- **Other Harvest Regulation**
- **Implementing Potential Changes**

Managing the Calf Harvest

Why manage the calf harvest?

A moose is considered to be a calf in the first year of life. Many units could benefit from calf harvest control:

1. In some units, the **calf numbers are low**. Reducing calf harvest will eventually increase the number of adults and strengthen the population.

2. In other units, the **calf harvest is high** (but the calf population is not necessarily low). High calf harvest reduces the number of adults that could be harvested – and therefore the number of adult tags.

1. Areas with low calf numbers

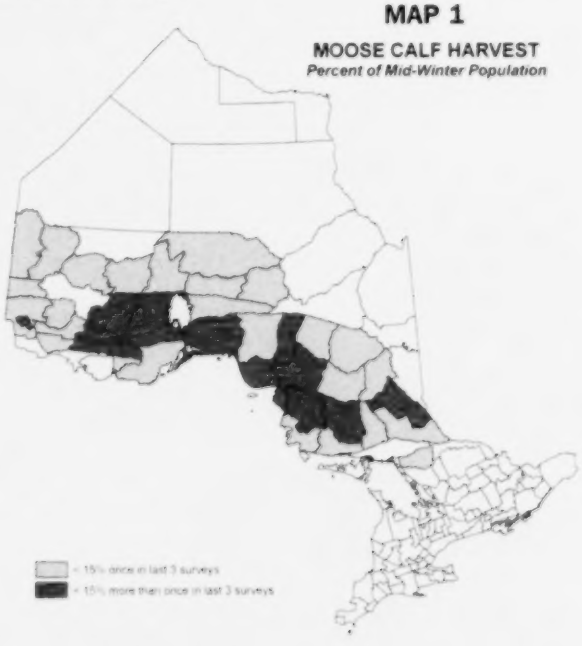
Based on aerial surveys, the units in dark green tend to have fewer than 15% calves in their mid-winter populations, which is relatively low.

Preferably, calves should make up more than 15% of the population. This allows the herd to better maintain itself and provide a reasonable harvest of adults.

MAP 1

MOOSE CALF HARVEST

Percent of Mid-Winter Population



2. Areas with high calf harvest

These maps show the units with a relatively high calf harvest.

When the calf harvest is high, the adult harvest has to be reduced to keep the overall harvest at the allowable level. This often shifts even more harvest pressure to calves, and can begin a downward spiral in which the adult harvest has to be further reduced.

Calf harvest in relation to calf numbers

The dark green units show where the calf harvest is at least 50% of available recruitment.

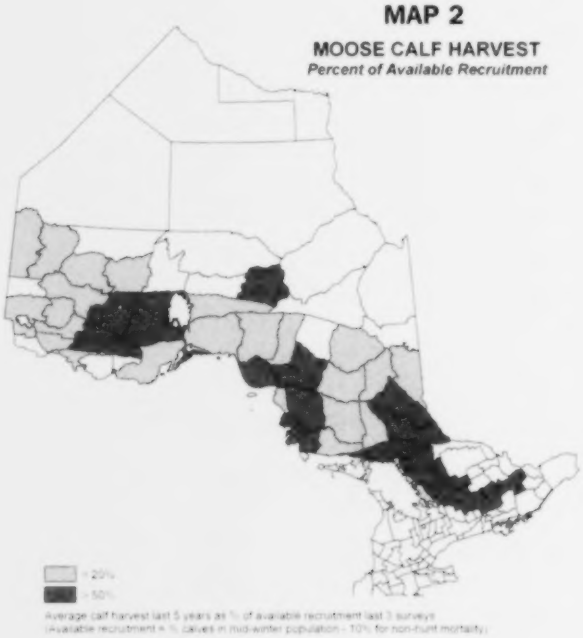
Total recruitment is the number of calves that become adults. They replace hunting and non-hunting mortality on adults and provide for population growth. Available recruitment is the number of calves that can replace adult harvest or provide for population growth – that is, the number available for us to manage.

Annual non-hunting mortality of those moose present in mid-winter is about 10%. So, in a population with 15% calves, only about 5% of the population is available for adult harvest or population growth that year.

MAP 2

MOOSE CALF HARVEST

Percent of Available Recruitment



Average calf harvest last 5 years as % of available recruitment last 3 surveys
(Available recruitment = % calves in mid-winter population - 10% for non-hunt mortality)

Calf harvest in relation to total harvest

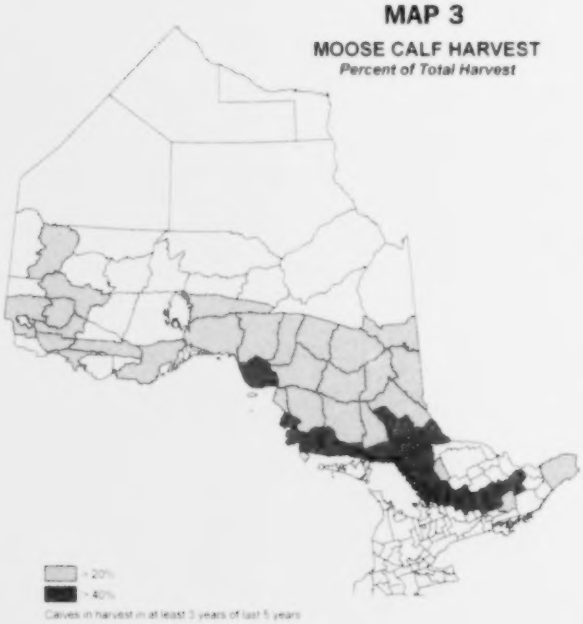
Calves make up more than 40% of the total moose harvest in the dark green units.

This is a large part of the harvest and results in a considerable reduction in the number of adult moose available for future harvest.

MAP 3

MOOSE CALF HARVEST

Percent of Total Harvest



Calves in harvest in at least 3 years of last 5 years

What areas would benefit from calf harvest control?

1. Areas with low calf numbers

For biological reasons, calf harvest management could be implemented in units where calves are consistently less than 15% of the population (dark green units on Map 1). This is important to keep the moose population strong and resilient to mortality factors.

2. Areas with high calf harvests

Some units have high calf harvests, but the calf population is not consistently low, often in the south (compare Maps 1, 2, and 3). In these areas, it is not critical to manage the calf harvest for biological reasons.

However, there may be other reasons to manage the calf harvest - for example, to increase the adult harvest and therefore the number of adult tags.

The effect of calf harvest control would be greatest in the dark green units on Maps 2 and 3. For example, reducing the calf harvest by half in those units on Map 2 would generally increase the adult harvest by more than 20%. The dark green units on Map 3 would generally have an increase of more than 25% in adult harvest. (These estimates allow for the natural mortality on calves as they become adults).

So, reducing the calf harvest is worth considering to increase the allowable harvest of adult moose and the number of adult moose tags.

The above estimates assume that the units are at their population objective. If the population is below its objective, some of the reduction in calf harvest could be used to increase the moose population. In that case, adult tags may not have to be reduced to increase the moose population.

Note – The number of adult tags may not increase by the same proportion as the adult harvest. Reducing the calf harvest increases the population of adult moose. This results in a higher success rate for hunters with an adult tag. So, for example, a little less than 20% more tags could be issued to harvest 20% more adults.

The Process

The review presents the general benefits and potential methods for managing the calf harvest. The objective is to determine the conditions where calf harvest control is supported, and what methods are preferred. This information will be used to streamline the regulatory process to allow a quick response where calf harvest control is needed.

Further public input will occur on any proposal to manage the calf harvest in a specific area. This would determine whether calf harvest is supported and what method is preferred.

Where calf harvest control is implemented, tag increases should start within two to five years - if aerial surveys confirm increases in calves and adult moose.

How other jurisdictions manage the calf harvest

There are five main moose harvest systems used in North America (*see table below*).

The two common ones control the harvest of calves. The first uses a draw for 'any-moose' licenses, where the total harvest is limited – including calves. The other one uses 'bulls-only' licenses, and the harvest of calves is not usually allowed. 'Antler size' licenses are a subset of the bulls-only system, and calves are usually not harvested.

Quebec's system does not manage the harvest of calves. It relies on protecting cows in alternate years, sharing a moose, and short seasons. Quebec also has a large network of parks, game reserves, and controlled access areas where the moose harvest is limited.

Main Moose Harvest Systems	Jurisdiction
Any Moose Licenses - by draw • License good for any sex or age of moose, so adults tend to be taken instead of calves	*Saskatchewan, New Brunswick, Nova Scotia, Newfoundland & Labrador, several U.S. states. Northwest Territories - unlimited*
Bull Only Licenses - by draw or unlimited • Harvesting of cows and calves is generally not permitted	*British Columbia, Alberta, Saskatchewan, Manitoba (sometimes includes calves), Newfoundland & Labrador, Yukon, Alaska and several other U.S. states.*
Antler Size Licenses - unlimited • Calf harvest is not permitted	*British Columbia (spike/fork bulls), Alaska (spike/fork & large antlers, large antlers only).*
Bull/Calf Licenses - unlimited **Any-Moose Licenses** - unlimited / alternate years • Cows protected in alternate years • Adults tend to be taken instead of calves	*Quebec*
Bull Licenses and Cow Licenses - draw **Calf Licenses** - unlimited • Calf harvest limited in only five units	*Ontario*

Note: *Most jurisdictions have more than one and often several systems. Those listed are the most common.*

Ontario is the only jurisdiction that controls the adult moose harvest and leaves the calf harvest open. The main advantages of the Ontario system are:

Biological - It regulates the harvest of both bulls and cows. This allows strong protection of cows - the key reproductive component of the herd. It also prevents the overharvest of bulls to maintain a suitable ratio of bulls to cows.

Social - It allows a very high level of participation. All hunters can hunt alone for a moose of some type, or help each other hunt in a group. Hunters can hunt every year and can go almost anywhere provided there is an open season.

So the Ontario system has a good foundation to build on.

Potential Calf Harvest Systems

A few systems emerge that would be effective in managing the calf harvest and could be incorporated into the Ontario system. Two could be used immediately to address some pressing concerns. Two others require more evaluation and changes to the system, and would take more work to implement. The present system is also discussed for comparison.

The major benefits and drawbacks of each method are listed, as well as how each could be applied. The graphs below and on the following pages show the estimated effects on tag numbers in a sample unit. The sample unit has relatively low calf numbers (less than 15% of the total population) and moderate calf harvests (35% of total harvest). Effects would vary by Unit but the pattern would be similar. The tag examples are based on reducing the calf harvest by half - which would make a significant improvement in the number of calves becoming adults where this is needed.

Calf Harvest Management Methods	
No Change	**1. Present System**
Potential Near Term Use	**2. Short Season for Calves** **3. Draw for Calf Tags**
Other Potential Methods	**4. Spike/Fork Bull System** **5. Calf Tag Limitations**

1. Present System - *no change*

The present system will continue to be used in a large number of units where calf population or harvest is not a concern.

Description

Present system
bull tags – limited
cow tags – limited
calf tags – unlimited

Advantages

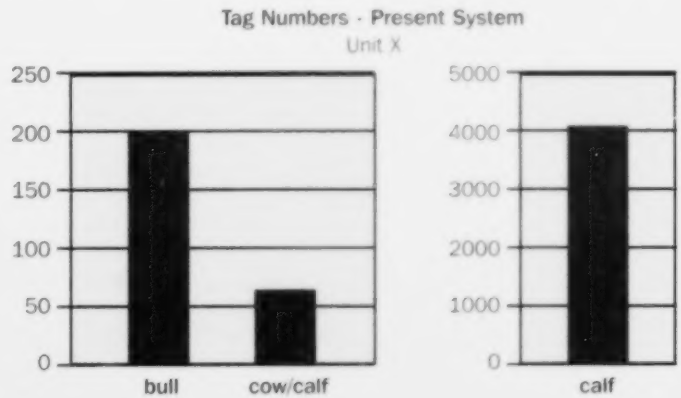
- allows everyone to hunt alone or in a group in most units

Disadvantages

- cannot increase calf numbers or adult tag numbers, if there is a problem with calves

Applicability

- will still work in units with high calf numbers, even with high calf harvest
- will not work where more calves or more adult tags are wanted



2. Shorter Season for Calves – *potential near term use*

Description

Present system but with short season for calves within the regular gun season

bull tags - limited
cow tags - limited
calf tags - unlimited
- six day calf season

Advantages

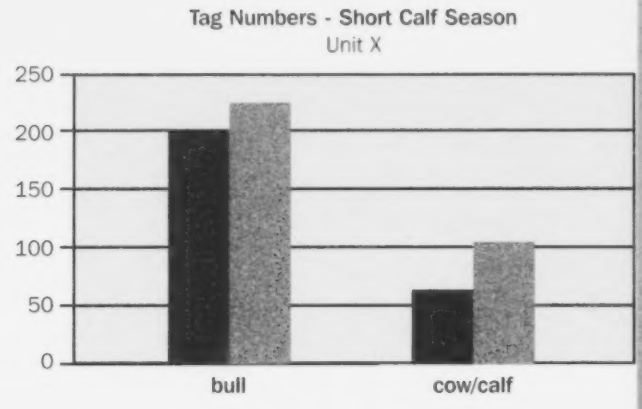
- should reduce calf harvest by about half in northern units
- allows everyone to continue to hunt alone or in a group in most units

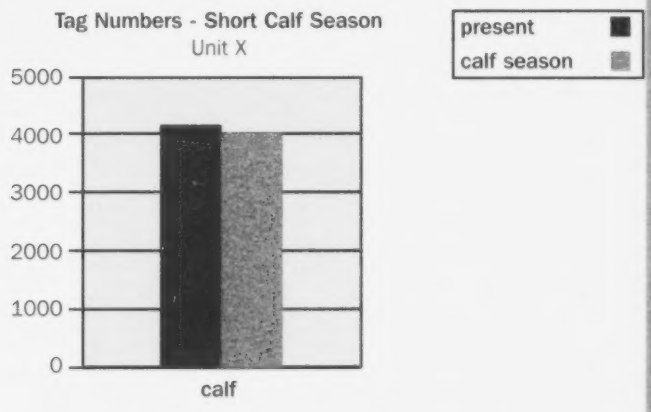
Disadvantages

- would not reduce calf harvest by more than about half
- much shorter time period for hunting calves (but calf hunters can still party hunt for adults in regular season)

Applicability

- may be feasible only in northern Units
- season in the south is already only 6 days – would a shorter calf season be acceptable there?

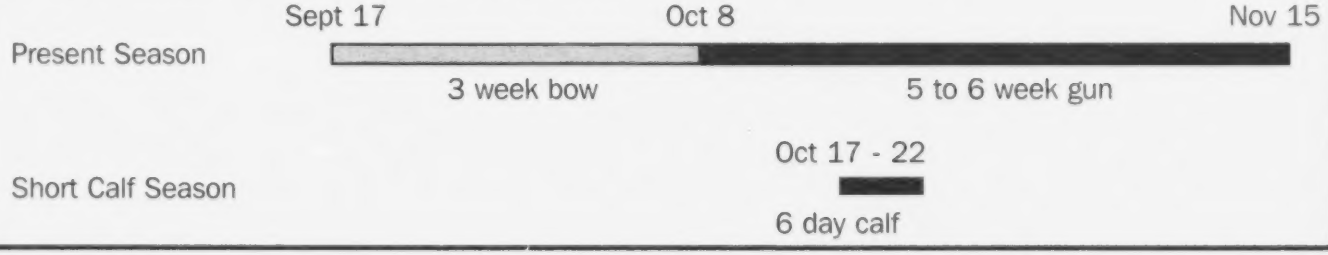




Notes about a Shorter Season

- A significant reduction in calf harvest would require about a one week season for calves. This would likely reduce the calf harvest by about half. Right now, just over 40% of the calf harvest occurs in the first week of the season in the north (see the *Harvest by Week* table in *Moose Seasons* section, following this section). Seasons are now five to ten weeks long in the north.
- Starting the calf season in the second week of the regular gun hunt would remove some of the first week hunting pressure from calves. This also corresponds to the season in the southern region, so it would be more difficult to hunt for a calf in both a northern and southern unit.

Example: Shorter Calf Season in the Northeast



Ontario

3. Draw for Calf Tags – *potential near term use*

Description

Present system but with an additional draw for a limited number of calf tags - same system as units 48, 55A, 55B and 57

bull tags - limited
cow tags - limited
calf tags - limited

Advantages

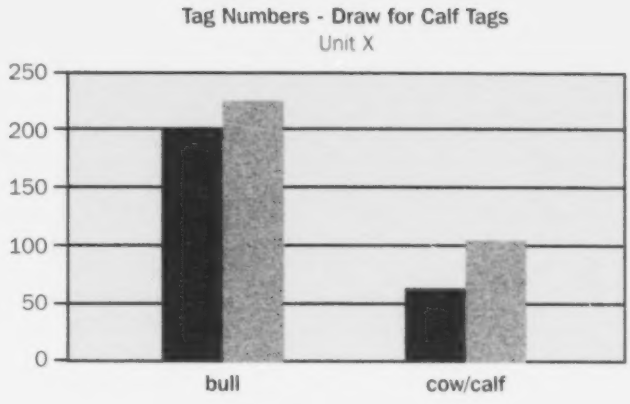
- allows greater local control of calf harvest
- moose population is responding well where this system has been applied

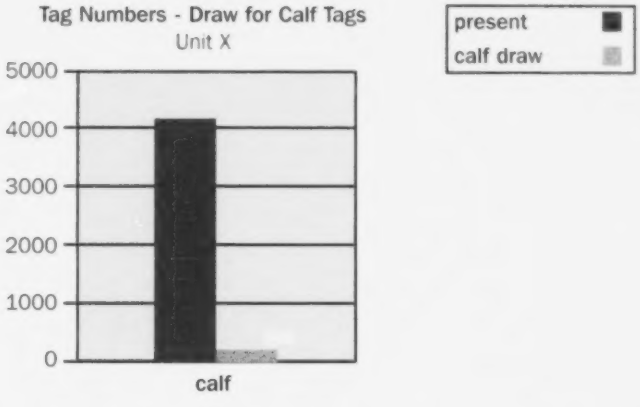
Disadvantages

- many hunters and even groups will not receive a tag and may not be able to hunt where they would like
- may shift pressure to units without calf controls and cause a domino effect

Applicability

- may be the only feasible method in the south where the season is already short and pressure is very high





How is the calf draw working in eastern Ontario?

In 2004, a draw for calf tags was implemented in units 48, 55A, 55B and 57 in eastern Ontario. Calf harvest was very high in these units and the moose population was dropping rapidly. Since implementation, the moose population has turned around, including the number of calves. Tag numbers are beginning to increase as well.

Unit 48 Progress	start data	latest data	increase
Moose Population	564 in 2002	814 in 2006	44%
Calves in Population	13% in 2002	22% in 2006	69%
Total Tags	86 in 2004	137 in 2007	59%

4. Spike / Fork Bull System – *other potential methods*

This is a version of systems used in British Columbia and Alaska. It is similar to the present system in Ontario, but with open hunting on spike/fork bulls instead of calves. Like the present system, this takes pressure off the main reproductive segment of the herd.

Description

Present system but with spike / fork (s/f) bulls taking the place of calves.

bull tags - limited
cow/calf tags - limited
spike/fork bull tags - unlimited
plus additional controls on the s/f bulls

Advantages

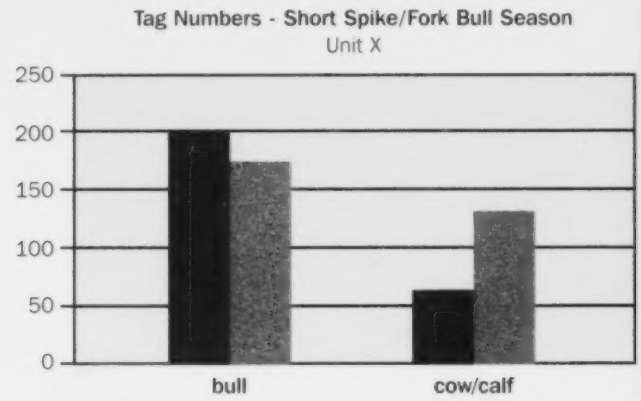
- allows most calves to become adults
- hunters not successful in the draw can hunt an adult-sized spike/fork bull
- calves could only be taken on a cow tag, so there would be fewer cows being mistakenly shot as calves
- yearlings with palmed antlers would need a bull tag - so not all yearling bulls are open to harvest

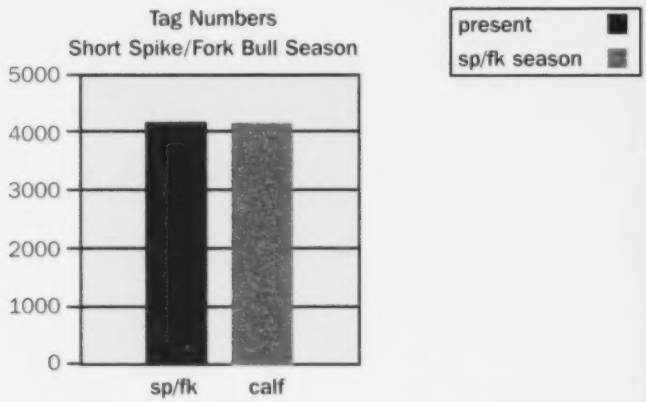
Disadvantages

- high pressure on calves would switch to s/f bulls, so additional harvest controls on s/f bulls will be needed - such as a short season or a draw
- s/f bulls may be more vulnerable to harvest than calves, so there is a risk of overharvesting the bull component (so adult bull tags may decline)
- some larger bulls and cows may be mistakenly shot as s/f bulls, but likely fewer than cows now shot as calves
- some older bulls can have s/f antlers and would be open to harvest

Applicability

- because of the risk of overharvesting bulls, this system would need to be considered cautiously





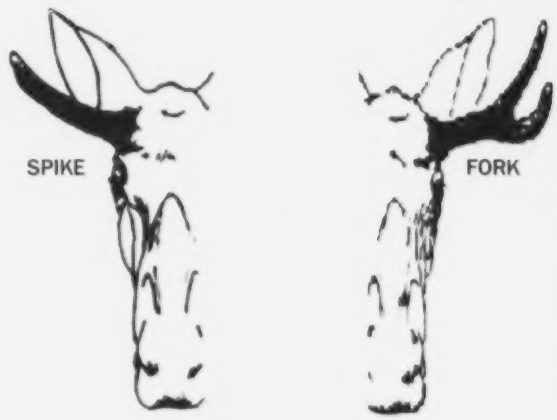
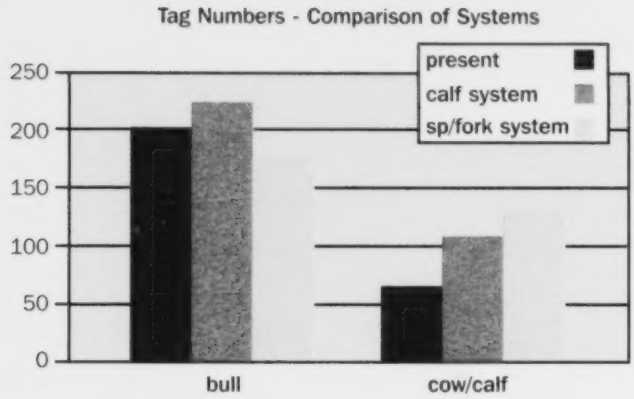
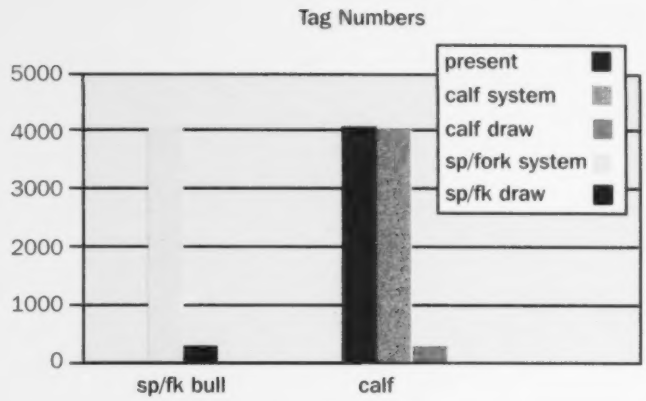


Illustration of spike and fork antlers from Alaska's hunting summary.





5. Setting Limits on the Use of Calf Tags – *other potential methods*

When Ontario residents purchase a moose hunting license, they are permitted to harvest a calf in most units with a season. (Note: there is a draw for a limited number of calf tags in a few units – see *Hunting Regulations Summary*). Setting limits on the use of calf tags may reduce calf harvest.

1. Limit calf tag validity to only one Wildlife Management Unit

Currently, hunters apply for an adult tag for a specific unit. However, about 20% of calves harvested are from a unit different than the one the hunter applied to. Allowing the hunter to tag a calf in only one unit may limit the calf harvest, but not by 20%. Hunters would likely change their hunting patterns and now spend their total time hunting in one unit. Overall calf harvest might not change much.

Hunting pressure may drop in some units if hunters had to choose just one unit. More work is needed to determine if this option would be worthwhile.

2. Limit tags to one per group

Hunters now apply as a group or as individuals for an adult tag in the draw. Those hunters that do not receive an adult tag can still hunt for a calf. As a result, hunting parties can harvest one or more calves in addition to the adult tags they have.

Data is not currently collected on the number of moose harvested by groups. Some estimates are that fewer than 20% of parties take a calf in addition to another moose. Limiting tags to one per group might reduce the number of calves harvested, but again, not by 20%. Not all the hunters in the party need to apply to the draw in the same group. That is, parties could still have tags from more than one group or from different individuals – and multiple harvests would continue.

This method could, however, improve the distribution of tags. Any hunter receiving a bull, cow, or calf tag would be put in Pool 2 the following year. This results in a larger number of hunters in Pool 2, and a better chance for hunters in Pool 1 to receive an adult tag. This may also be an incentive for hunters to apply in larger groups to minimize the number of their group members in Pool 2. This would help promote more sharing of the moose harvested. (See Component 4 - Resident Tag Draw for an explanation of the pooling process).

Calf Harvest Management – a summary

The intent is to end up with a calf harvest management approach that works well for the moose population and hunters, and can be easily administered.

Let us know what you think about these calf harvest control options on the questionnaire.

Effective - The system needs to make a significant difference in the calf harvest, and increase the number of adult moose for the next year.

Acceptable - From the hunters' point of view, the system should maintain a high quality hunt and as much flexibility for hunters as possible. The system should also be straightforward and easy to understand.

Feasible - The system has to be easy and inexpensive to implement.

Moose Seasons

Adjusting the moose season for calves is one of the methods that could be used to control calf harvest. Other changes to seasons could be used to provide moderate increases to the moose population or the number of adult tags. Current seasons are as follows:

South - short (six days)
Northeast - long (three week archery hunt with a five to six week gun hunt)
Northwest - quite long (three week archery hunt with a 10 week gun hunt)

Season changes would generally be considered only for the main part of the moose range where needed, and not the far north where hunting pressure is low.

Categories of Season Changes

1. Season Length
2. Season Start
3. Season Type

1. Options for Season Length

Short calf season

- As discussed in the previous section on *Managing the Calf Harvest*, shortening the season for calves would increase the number of calves, which will provide more adults for population growth or harvest.
- A one week calf season should reduce the calf harvest by 40% to 50% in the north. (This incorporates a 20% to 25% increase in the first week harvest from hunters who may not hunt the first week now). At present, just over 40% of the calves are taken in the first week (see table below). A shorter calf season might be feasible in the south but would have to be only two or three days.
- The number of additional adult tags will vary by unit depending on the current calf harvest and whether the unit is at its population objective. There are many units where the near-term increase could be over 10% and many where the increase could be more than 20% (see maps in the previous section *Managing the Calf Harvest*).

Effects of Season Length

Harvest by Week (%) - Northeast (Oct to Nov 15 season)				
Week of Season	Bulls	Cows	Calves	Total
1	61.9	50.4	40.7	51.9
2	18.0	23.0	23.9	21.1
3	8.2	13.0	12.6	10.7
4 to Nov 15	11.8	13.6	22.9	16.2
Harvest by Week (%) - Northeast (Oct to Nov 15 season)				
1	60.2	53.5	43.6	54.8
2	16.3	19.8	19.4	17.8
3	5.5	6.9	8.2	6.4
4 to Nov 15	6.4	6.9	11.5	7.8
Nov 16 to Dec 15	11.6	12.9	17.4	13.3

Note: proportion of calves taken in week 1 and proportion of harvest after week 3.

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Note: proportion of calves taken in week 1 and proportion of harvest after week 3.

Shorter overall season

- Shortening the regular gun season in the northeast or the northwest could also result in some additional adult tags.
- In the northeast, about 12 to 14% of the adult harvest occurs after the third week of the season (see table on previous page). A three week season might result in 10% more adult tags for these Units (this incorporates a 20-25% shift of late season harvest to earlier in the season).
- In the northwest, about 12 to 13% of the adult harvest occurs in the last month of the season and another 6 to 7% after the third week (see table on previous page). Significantly shorter seasons in the northwest could result in 10 to 15% more adult tags for these Units.

2. Options for Start Date

A later start would be beneficial for the shorter calf season. Starting in the second week of the regular gun hunt would remove some of the first week hunting pressure on calves. This also corresponds to the season in the south; and may reduce pressure on calves by hunters who now hunt a northern unit the first week and a southern unit the second week.

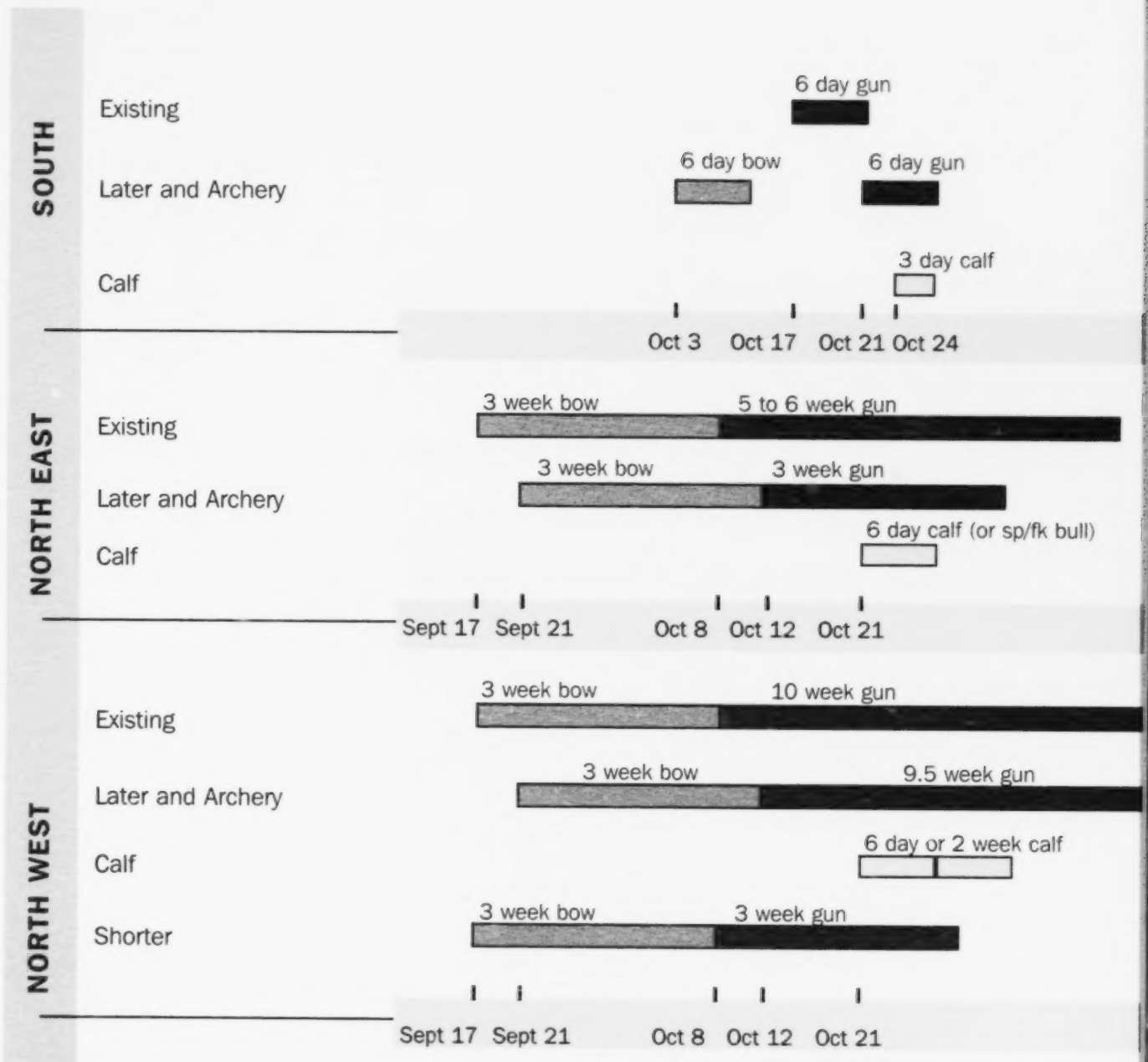
A later start date could also be considered for the regular gun hunt in the core moose units in the north. This would move the season a bit further away from the rut and into a period when the weather is more likely to be cooler. A slight shift to the Saturday closest to October 12 would put the opening date into the second week of October in all years. Currently, the opening is the Saturday closest to October 8, so about half the time the season opens in the first week of October.

3. Options for Season Type - Archery

If calf harvest is controlled in the south, it could be possible to add a one week archery season in some southern units. This is similar to the approach already in place around Pembroke and Bancroft. More tags can usually be issued for archery than for guns because of the lower success rates.

A separate allocation for archery could also be added in all units in the northeast that have an early archery season. This would make these units consistent with the rest of the province and allow a few more adult tags overall.

Some Season Options by Region



Let us know what you think about these calf harvest control options on the questionnaire.

Other Harvest Regulations

In Ontario, the selective harvest system controls the type and number of moose that can be harvested by licensed hunters, and the season limits the amount of time available to hunt. There are also other hunting regulations that, if used, affect the harvest of moose, including regulations on gear, vehicle use and access, hunting closures, and party hunting.

Ontario has one of the most open systems for moose hunting in North America. In most units with a moose hunt, all hunters are eligible to harvest a moose of some type. Hunters can also hunt in any size of group - and they can continue to help others harvest a moose even after they have been successful themselves. Most of the seasons are several weeks long. Ontario has relatively few regulations on gear and vehicle use - and these are mostly related to safety. On Crown land, there are also relatively few areas where access or hunting is prohibited.

Ontario's system results in high hunter success - particularly for adult moose. When a hunter gets a tag for a bull or a cow, there is a good chance of harvesting a moose - especially when party hunting. This is the main reason why the number of bull and cow tags is not much more than the allowable harvest of adults - and nowhere near the number of hunters.

Let us know what you think about changes to other regulations on the questionnaire.

Implementing Potential Changes

The purpose of this section of the review is to get public input on some potential tools to improve calf numbers and the overall moose population, and thereby increase the allowable harvest of adult moose and the number of adult tags. Other suggestions for improvements to moose population management are welcomed.

This Step - The input will be used to identify improvements to our present system and additional tools that could be used to manage moose in Ontario.

Next Step - If changes are considered for a particular area, there will be additional public consultation specific to that area before decisions on any changes are made.

A Note About Harvest Management

In Ontario, moose management is all about trying to find an appropriate balance between protecting the resource and providing for its use. When it comes to moose harvest management, moose populations need to be strong and provide an appropriate mix of benefits to the people of Ontario.

Some of the harvest management options outlined above continue to allow all moose hunters the opportunity to harvest a moose. These options may be appropriate in many areas. They should maintain moose populations at suitable levels and all hunters can hunt alone or in any group they wish.

However, open systems may not continue to work in areas where hunting pressure becomes high or other mortality factors are significant. In these areas it may be necessary to move to more restrictive harvest systems.

There are already some units in the south where hunting pressure is so great that every hunter cannot have a tag without over harvesting the moose population. More control of the calf harvest may be the only option in other areas now.

This is the ongoing evolution of managing a resource where the demand far exceeds its supply. We have already seen the progression from uncontrolled harvest of all moose prior to the 1980s - to the controlled harvest of adult moose that we have had for the last quarter of a century - and now to better control of calf harvest where needed.

4. RESIDENT TAG DRAW

Why We're Reviewing the Draw

- The review is being conducted to address concerns raised by the hunting community and to ensure the program continues to respond to environmental changes as well as the needs of society.
- In the past, the ministry has updated the tag draw because of changes in the moose population and to better distribute the available tags to moose hunters. We know some hunters have concerns about the process as well as other factors affecting moose.
- Although the demand for tags exceeds the supply, hunters can be successful using the current system.
- This section, and the Hunting Regulations Summary, explain the current system A questionnaire is available as a pull-out centrefold in this booklet for your input and comments.

Why is there a Moose Tag Draw?

To manage the moose population sustainably

- The basis of the tag allocation system is the selective harvest program.
- The goal is to maintain healthy and sustainable moose populations by controlling harvest pressure through setting quotas and issuing validation tags for adults and calves when necessary.
- When harvest pressure is moderate and calf numbers are healthy, calf hunting is not restricted.
- Calf harvest is currently controlled in 4 Wildlife Management Units in eastern Ontario due to population sustainability concerns.

To allow predictable harvest levels

Harvest rates are set based on:

- Population size
- Past harvest levels
- How close the population is to a desired level (population objective)

To distribute a limited number of validation tags

- One of the main objectives is to distribute limited tags among a large number of hunters and to optimize access to tags.
- The system encourages hunters to apply in groups.
- Tags are distributed through a group allocation and a random draw.

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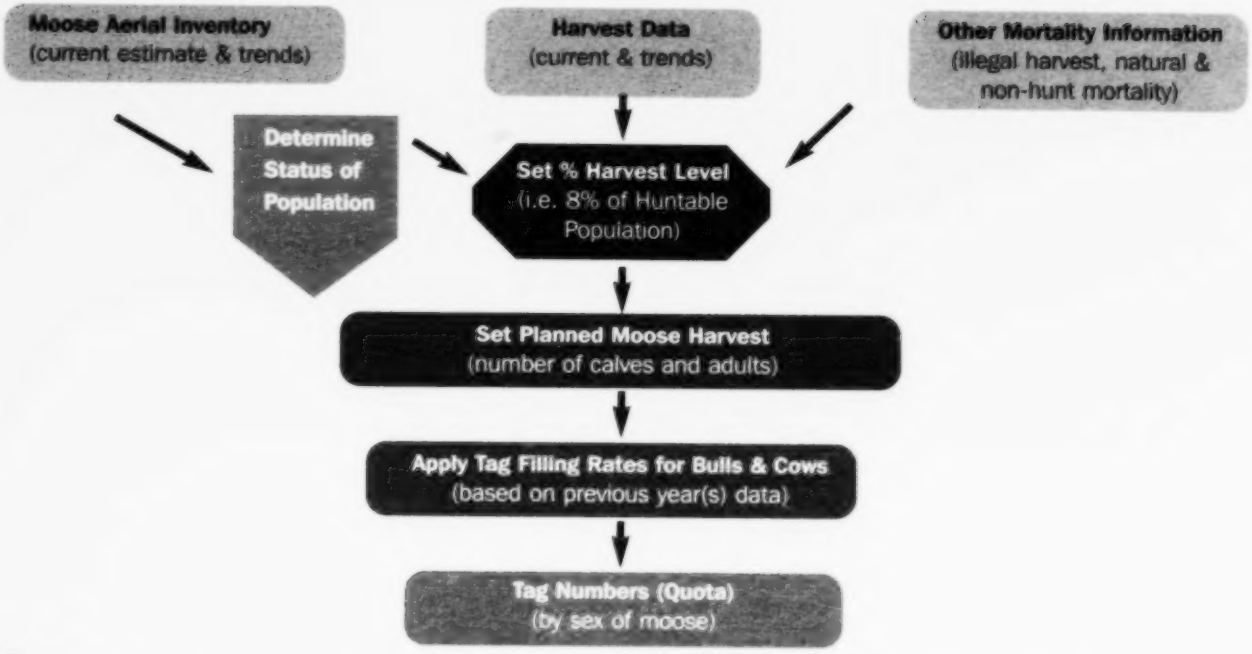
How Tag Numbers (quotas) are Set


Moose Aerial Inventory
(current estimate & trends)
Harvest Data
(current & trends)
Other Mortality Information
(illegal harvest, natural & non-hunt mortality)
Determine Status of Population
Set % Harvest Level
(i.e. 8% of Huntable Population)
Set Planned Moose Harvest
(number of calves and adults)
Apply Tag Filling Rates for Bulls & Cows
(based on previous year(s) data)
Tag Numbers (Quota)
(by sex of moose)

Ways to Access Adult Moose Hunting Opportunities (Tags)

The Pooling Process

To improve a hunter's access to a tag, a pooling system was introduced so that unsuccessful hunters would be given priority in the next year's draw. ***Applications for the draw are classed as Pool 1 or Pool 2.***

You are in <u>Pool 1</u> (preferred pool) if you:

Applied to the draw the previous year for a tag and were unsuccessful

OR

Were successful in the draw and transferred the tag to the group alternate
(*unless you did this in two consecutive years*)

OR

Were successful in the draw for a calf tag in WMU 48, 55A, 55B or 57.

You are in <u>Pool 2</u> if you:

Received an adult moose validation tag in the draw the previous year

OR

Received an adult validation tag through a transfer in the previous year

OR

Did not apply to the draw the previous year

OR

Gave up a tag in a transfer for 2 consecutive years

Ontario

How Tag Numbers (quotas) are Set

Moose Aerial Inventory
(current estimate & trends)

Harvest Data
(current & trends)

Other Mortality Information
(illegal harvest, natural & non-hunt mortality)

Set % Harvest Level
(i.e. 8% of Huntable Population)

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OR

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Gave up a tag in a transfer for 2 consecutive years

Group Application Process

- A group application system was established in 1992 for better access to adult moose tags.
- Applying in a group increases every hunter's chance of getting a tag for their group. A group can only get one tag, so that tags are spread out more evenly.
- Applying in a group keeps more hunters in Pool 1 for the next year.
- Through party hunting, any adult tag held by a group member can be filled by another member under certain conditions (see ***Hunting Regulations Summary***).
- For adult moose hunting, some hunters only consider themselves successful if they get a tag personally or are in a group with a member that has a tag. Others feel they are unsuccessful if the tag is not in their name, even though they may be part of a successful group.
- Most hunters are successful in getting a tag, even those applying individually. From 1992 to 2006, only 364 hunters who had applied consistently to the draw did not receive a tag personally or as part of a successful group.
- There is no disadvantage in applying as a group, actually, there's an advantage.

Guaranteed Group Size (GGS)

- In some units, an adult moose tag will be guaranteed to a group when it has a pre-determined number of Pool 1 hunters. *Only Pool 1 hunters in the group are counted when determining the group size.* The Guaranteed Group Size numbers are published annually in the Hunting Regulations Summary.

Groups have access to a tag at 3 steps in the draw process, while individuals only have access to a tag in one step of the draw process:

1. Guaranteed Group Allocation
2. Large Group Allocation
3. Individual Random Draw Allocations

Understanding the Moose Tag Draw

By understanding the current system, hunters can improve their chance of hunting an adult moose.

The Tag Draw Process

Tags are distributed in what is commonly referred to as the "draw". There are actually four steps in the draw process. Hunters can apply in groups or as individuals and may apply to draws in two units.

1. **Guaranteed Group Allocation**
2. **Large Group Allocation**
3. **Random Draw Allocation**
4. **Northern Draw**

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STEP	TAG DRAW PROCESS
1 **Guaranteed Group Allocation**	• Each group that meets the Guaranteed Group Size requirement is allocated one tag for the unit, type of moose (bull, cow, calf) and type of firearm selected by the group. • The tag is assigned to the Pool 1 member of the group who has consistently applied and not received a tag for the longest time. • Another Pool 1 hunter is designated as the alternate. This is the hunter who has gone the second longest number of consecutive years without receiving a tag. • All members of these "guaranteed groups" are then removed from the draw.
2 **Large Group Allocation**	• A computer calculates the number of applicants left in the draw after the Step 1 and compares it to the number of tags still available. This is the the **Hunter:Tag Ratio**. • Each group whose number of Pool 1 applicants is equal to, or greater than the Hunter:Tag Ratio is issued one tag. *Example: If at the Large Group Allocation stage there are 600 hunters left, and 104 tags available, the Hunter:Tag Ratio is 5:7. All groups with six or more Pool 1 hunters will be issued a tag.* • The tag is assigned to the group as in Step 1. All members of these successful "large groups" are then removed from the draw.
3 **Random Draw Allocation**	• All remaining Pool 1 applicants (all individuals and every member ot the remaining groups), are eligible to receive one of the remaining tags in a random draw. • If a tag is given to a member of a group at this step, the rest of the group is removed from the draw. • If there are still tags available, the Large Group Allocation and the Random Allocation are repeated for Pool 1, Choice 2 hunters; then Pool 2, Choice 1; and Pool 2, Choice 2. • In most units, only hunters in Pool 1, Choice 1 will have a chance to receive a tag. The Guaranteed Group Allocation is provided only for Pool 1, Choice 1 applicants.
4 **Northern Resident Draw**	• In northern units WMU 1 to 42, there is an additional Northern Resident Draw. • 5% of the adult tag quota is set aside from the regular draw quota for northern residents who were unsuccessful (or a member of an unsuccessful group) in the current year's draw or the previous two draws.

Potential Alternative Tag Distribution Systems

There are many ways to distribute tags. A few that could be considered are:

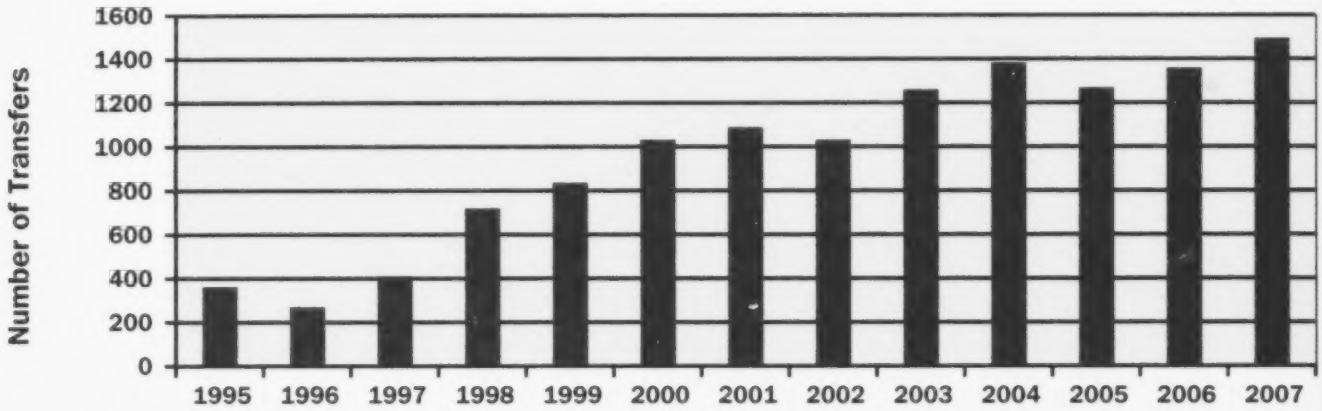
- Extend Pool 2 Time - Hunters successful in getting a tag could be placed in Pool 2 for two years to increase the chances of other hunters getting a tag.
- Sequential System or Point System - Hunters get a tag in sequence - not randomly. They accumulate points according to the number of years they have gone without a tag. Tags are given to those with the most points. The number of points required for a tag would vary depending on the unit. A variation of this system would allow groups to accumulate points.
- Split Quota System - A portion of the tags could be set aside for large groups. This is a modification of the guaranteed group size. In units where there is no guaranteed group size or where it is very high, hunters applying in the largest groups would get a tag. A portion of the tags could also be allocated to smaller groups. This system encourages hunters to hunt in a group and share a moose. It associates more hunters with the tags that are available.

We would like to hear your ideas on enhancements to the tag distribution system.

STEP	TAG DRAW PROCESS
1 Guaranteed Group Allocation	
2 Large Group Allocation	
3 Random Draw Allocation	
4 Northern Resident Draw	

Adult Moose Tag Transfers

- We've heard concerns about the increasing number of tag transfers and the number of hunters who have transferred tags repeatedly.
- In 2007, there were 1,489 tag transfers, which is about 19% of the tags issued to groups.
- Each year, about 7% of tag recipients are those who have also transferred a tag in the previous year.



Present Tag Transfer System

Tag transfers apply only to groups (not those applying as individuals) and are allowed when the original tag holder is unable to hunt. This is permitted so that hunters who apply as a group, and voluntarily agree to share one tag, are not penalized if the tag recipient cannot hunt.

- The tag can be transferred from the original recipient to a designated alternate in the group. The alternate is the Pool 1 member of the group who has gone the second longest number of consecutive years without receiving a tag.
- Only one transfer is permitted.
- After moose season opens the transfer can only occur if the tag holder is medically unfit to hunt, as proven by doctor's certificate.
- Transfers can be done at Service Ontario offices for a fee.
- Hunters who receive a tag in a transfer are placed in Pool 2 the following year.
- Most hunters who transfer a tag to another group member will be placed in Pool 1. However, hunters who transfer their tag in two consecutive years are placed in Pool 2.

Some Alternate Tag Transfer Approaches

Potential changes to improve the system might be:

1) Both original tag holder and transfer recipient placed in Pool 2.
2) Original tag holder placed in Pool 2 for the number of years he/she has consecutively transferred a tag.
3) Increase fee to cover all administration costs.
4) Allow unlimited transfers for a fee to cover administration costs.

Or: Status Quo - maintain the current system as it is - no changes required.

Changes in 2007

In 2007, tags were issued to the hunter in the group who consistently applied and had gone the longest without a tag, in Pool 1. Also the transfer went to the hunter who had gone the second longest time in Pool 1. This helped reduce the number of hunters who had gone the longest without a tag.

Let us know what you think about the current moose resident tag draw. A pull-out questionnaire is included in the centre fold of the document.

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